15¢

The OIL WEEKLY

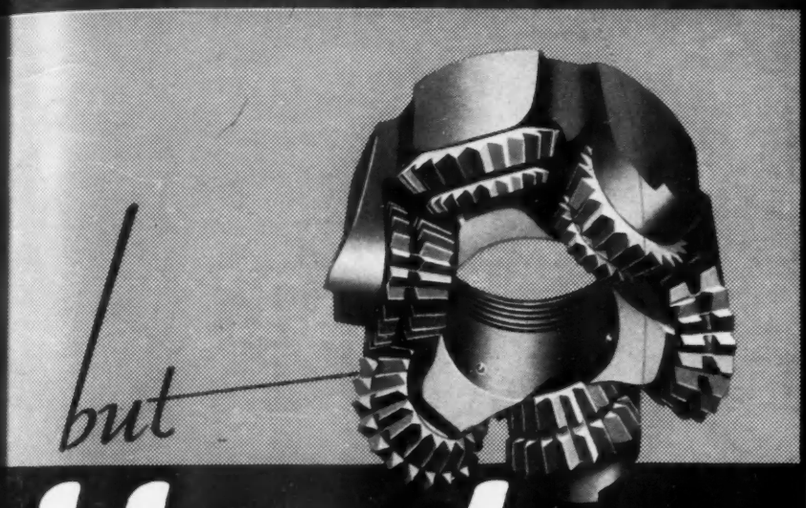
OIL and GAS ENGINEERING

FOR OIL AND GAS PRODUCERS AND PIPE LINE MEN

THE WEEK'S NEWS INTERPRETED

THE DEEPER THE HOLE-

THE *tougher the drilling!*



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Hughes

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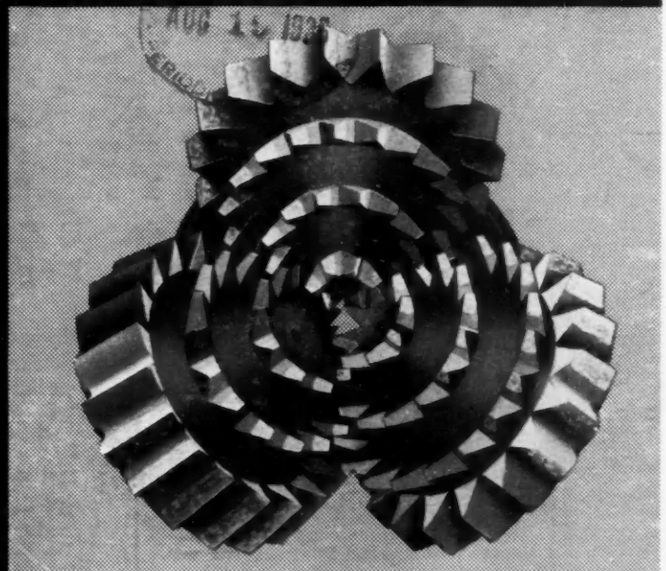
HAVE GIVEN

Satisfactory Performance

ON THE DEEPEST HOLES IN THE WORLD



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VOLUME 78 AUGUST 12, 1938 NUMBER 9

MICHIGAN PRODUCES LEADERS

—AND APPRECIATES *STAMINA* IN MEN AND PRODUCTS

"PONTIAC'S WAR"

When the English first entered the wilds of Michigan, Pontiac told them proudly, "We will call your king 'uncle', but we will not call him 'master'." Pontiac, Chief of the Ottawas, was also head of a confederacy of Algonquin tribes, and his influence extended throughout the Mississippi valley.

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The well shown above is George W. Barger No. 1, the North offset of the famous discovery well in Crystal Township, drilled by Alma Drilling Company for the Eastern Gulf Oil Co., Inc. The men, left to right, are: Front row—Ralph Bradley, Howard Chestnut, S. J. Chestnut, Jarecki Mfg. Co.; F. A. Donaldson, Union Wire Rope Corp.; E. A. Corbin, Jarecki Mfg. Co.; J. A. Moore, Jarecki Mfg. Co. Second row—Harry Foster, tool dresser, Chas. M. Irvin, driller, J. P. Meyers, Production Supt., Eastern Gulf Oil Co.; R. R. Kendrick, attorney, W. P. Clarke, Eastern Manager, Eastern Gulf Oil Co.; Miss Mary Carey, super sales lady, Mt. Pleasant Lumber Co.; Leo McCoy, tool dresser, John Wilson, driller. Back row—David Norris and Ted Grosse, lease men, Eastern Gulf Oil Co.

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THE PETROLEUM TIMES

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The OIL AND GAS JOURNAL

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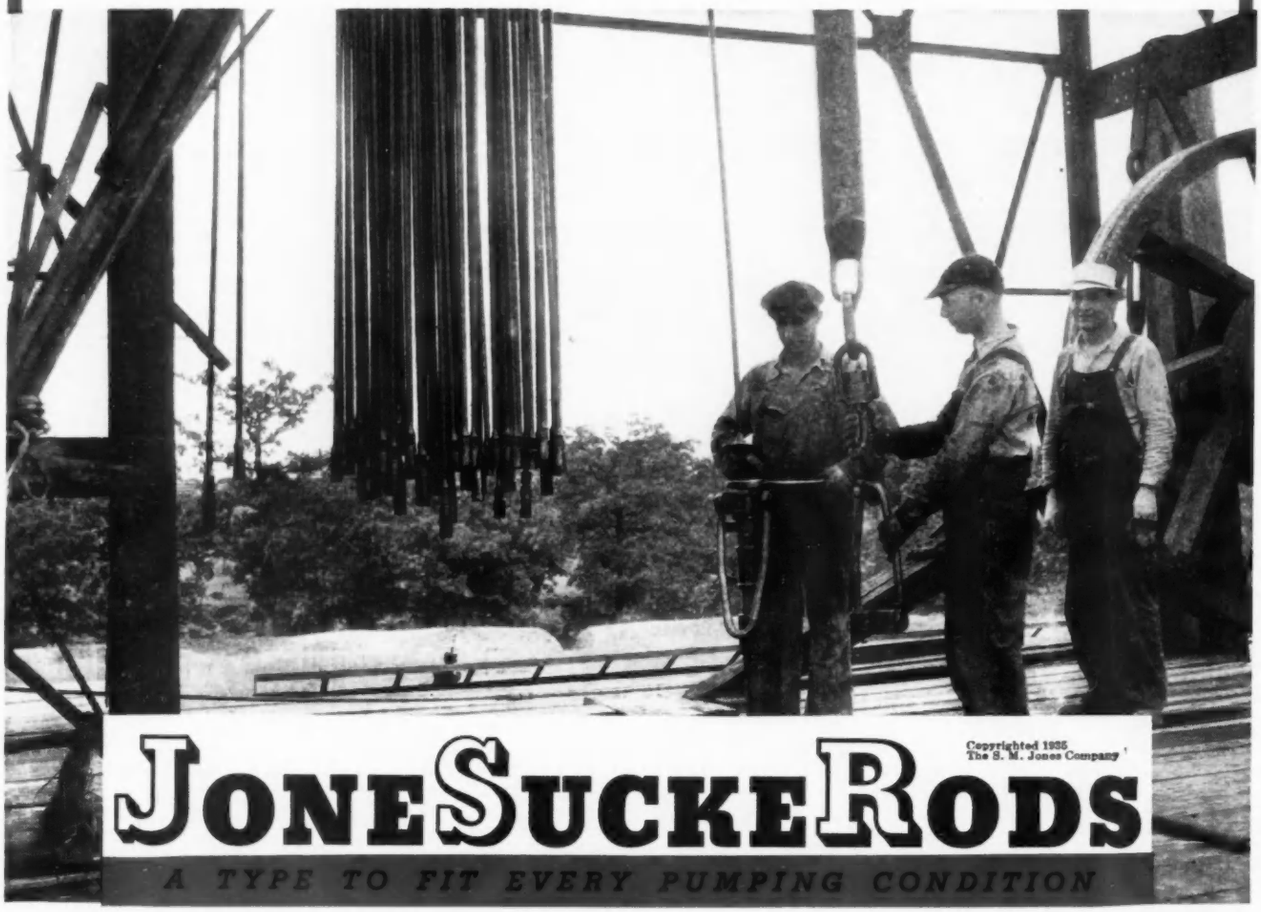

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PUBLISHED BY
THE GULF PUBLISHING COMPANY
HOUSTON, TEXAS

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SPECIALIZED OIL JOURNALS
Published by
THE GULF PUBLISHING COMPANY

BRANCH OFFICES

NEW YORK.....250 Park Ave.
PITTSBURGH.....Standard Life Bldg.
CHICAGO.....332 S. Michigan Ave.
LOS ANGELES.....Haas Bldg.
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FORT WORTH.....W. T. Waggoner Bldg.
WASHINGTON.....Albee Bldg.

Member Audit Bureau of Circulations.

Published every Monday. Single Copies 15 cents. Subscription price: domestic and foreign, $2.00 a year. Entered as second-class mail matter December 23, 1916, at the post office at Houston, Texas, under act of March 3, 1879. Subscription restricted to those engaged in the producing and pipe line branches of the oil industry or the manufacturing and distribution of oil field supplies.
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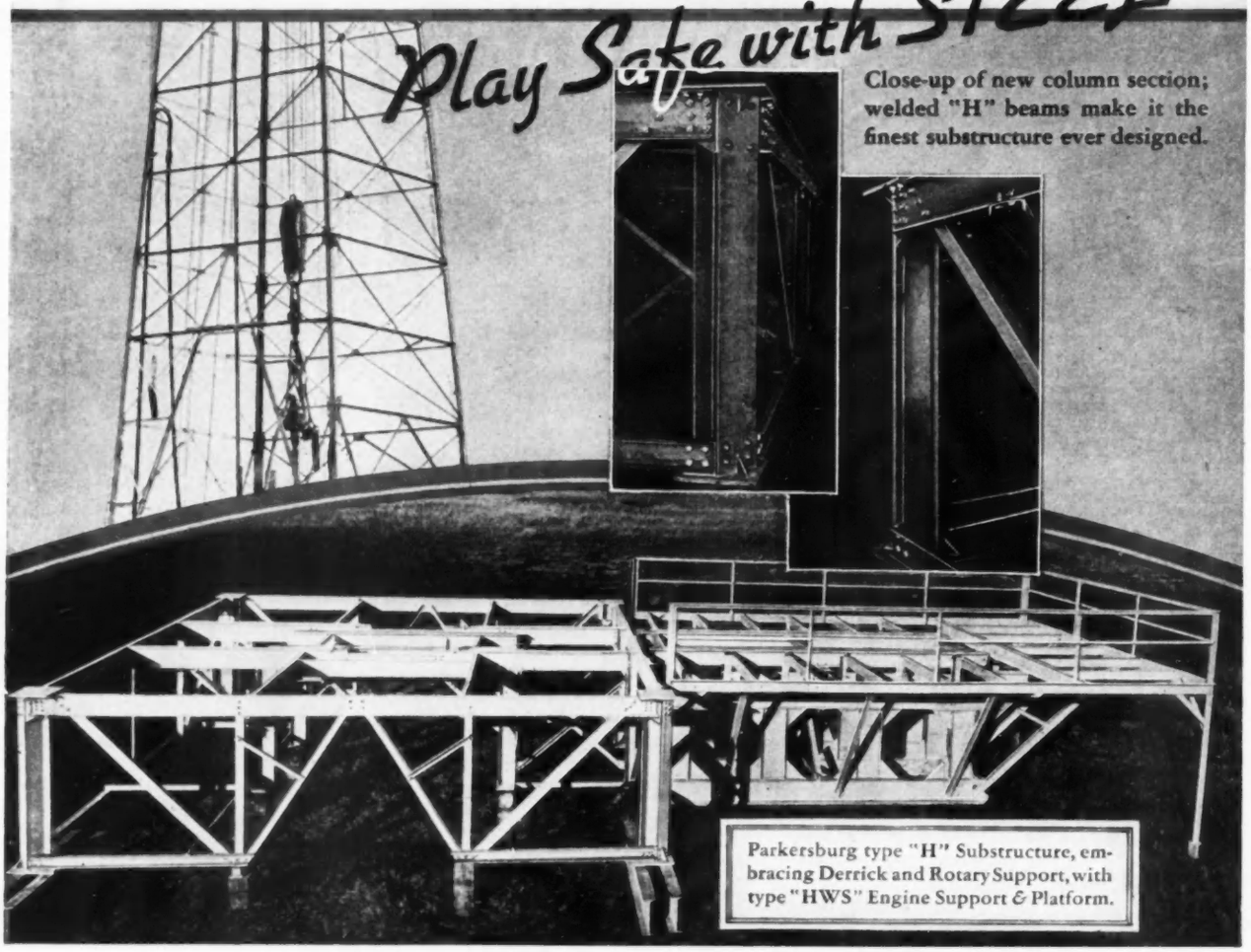

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THE OIL WEEKLY
FOR OIL AND GAS PRODUCERS
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ENGINEERING • NEWS • STATISTICS

WARREN L. BAKER, Editor

. . . this Week

PROSPECTS for legislation providing federal control of the industry were revived suddenly in Washington last week. At a White House conference, President Roosevelt gave his backing to such action. Lack of encouragement from the president previously had caused little effort to be devoted toward passage of oil control bills. Immediately following the White House oil conference, two control bills were introduced in Congress. Later the President delivered a message to Congress urging them to sanction interstate compacts between states, but he went little farther than that; while the bills have stronger regulations. **Page 8.**

FROM a statistical standpoint conditions in the industry remained favorable during July. Although production was up four percent over June, crude oil and gasoline stocks diminished 4,000,000 and 2,000,000 barrels respectively. This makes the third consecutive month in which storage has declined, indicating the unusually high consumption of petroleum products; as production has been rising. As a result of these favorable factors, drilling operations rose to 60.9 completions daily, or slightly beneath the year's peak. The only disturbing development was slight local cuts in crude prices, but markets generally were firm. **Page 10.**

THE Texas Railroad Commission has been held unable to suspend action on drilling permits. The commission members were withholding action on permits requiring exceptions to regular spacing rules until settling of the spacing suit known as Brown vs. Humble Oil & Refining Company. The Texas attorney general's office, however, has decided that the commission does not have the power to do this. **Page 9.**

FURTHER indications that business is improving is to be found in oil company earnings for the first six months, which were considerably higher than in recent previous quarters. Several factors make the future brighter, especially those influencing the consumption of petroleum products. **Page 13.**

WITH only 1300 acres, the Long Beach, California, field has produced 532,000,000 barrels, or 400,000 barrels per acre, which is 20 times what the East Texas field is expected to ultimately yield per acre. The field has almost one well per acre, and is still capable of more oil than some newer discoveries. Although 105 barrels of water are produced for each 100 barrels of oil, the field potential is more than 100,000 barrels daily and is producing 70,000 barrels daily. Almost 1350 miles of hole have been drilled in this field, which in many respects is the greatest oil producing area ever developed. **Page 31.**

AN unusual pipe line repair job took place in East Texas when it was decided to permanently replace a previously installed temporary repair. The entire cost was only a fraction of the market value of the oil that would have been wasted had the line been drained to replace a new joint. It was accomplished by placing a shell over the previously installed sleeve and then cementing and welding it in place. **Page 28**

THE penetration of hard boulders found in the glacial drift surface formation is the most troublesome drilling problem encountered in the new Crystal field of Michigan. The procedure used in boring this horizon is very interesting. Considerable care must be used in driving pipe through the drift, especially when large boulders are present, if cable tools are in use. In rotary drilling, the loss of fluid is a condition that must be overcome. **Page 21.**

AN IMPROVED plug-back method being used successfully in South Texas, includes underreaming of the bottom of the hole to double its former diameter. This provides a square shoulder, which forms a secure seat for the cement block. It has been found that the shoulder holds the cement in place and prevents water encroachment up the outside of the cement block; thus making more permanent the shutting off of water. **Page 48.**

The Oil Man's Calendar

AUGUST

19-24 American Chemical Society, San Francsico, California.

SEPTEMBER

18-20 National Petroleum Association, Atlantic City, New Jersey.

OCTOBER

10-12 A.I.M.E. Petroleum Division, Mid-Continent Section, Houston, Texas.

16-17 American Association of Petroleum Geologists, Mid Year Meeting, Mexico City, Mexico.

NOVEMBER

4-5 Independent Petroleum Association of America, Annual Meeting, Dallas, Texas.

11-14 American Petroleum Institute, Annual Meeting, Biltmore Hotel, Los Angeles.

President Urges Pact

BETWEEN STATES IN CONTROL MESSAGE SENT TO CONGRESS

WASHINGTON, D. C.

CONTENTING himself with asking merely for ratification of the interstate compact, President Roosevelt on August 9 sent his long-awaited oil message to Congress.

While the message was disappointing to some who had hoped that the President finally would commit himself as to the type of legislation he would favor, it was not generally expected that Roosevelt would go much further than he did.

"I transmit herewith a certified copy of the state compact to conserve oil and gas, executed in the City of Dallas, Texas, on February 16, 1935, by the representatives of the states of Oklahoma, Texas, California, and New Mexico, and recommended for ratification by representatives of the states of Arkansas, Colorado, Illinois, Kansas and Michigan," the President stated in his message.

"The compact signed by representatives of these states has been deposited in the Department of State of the United States. I also transmit a report of the Secretary of State, from which you will observe that notification has been received by the Department of State of the ratification of the compact by the legislatures of the states of New Mexico, Kansas, Oklahoma, Illinois, Colorado and Texas.

"I recommend that the Congress enact legislation, giving the consent of Congress to the state compact to conserve oil and gas, executed at Dallas, Texas, on February 16, 1935."

Control Controversy

As a result of the pending legislation, the major point in controversy will be the giving of control to the Secretary of the Interior.

While the President, in discussing the bill, expressed a desire to have the proposed petroleum administrative board report to him through a cabinet officer, inferentially Secretary Ickes, many members of both Senate and House are unalterably opposed to giving him any voice in the oil program. Accordingly, if it is intended that the secretary merely be the medium through which the board is to report, a fight might be averted. But if he is to have any authority whatever a fight is inevitable.

The situation was summed up briefly by one of the House leaders, who said, "Mr. Ickes has to be divorced entirely from oil management or there will be no legislation."

Considerable opposition to certain phases of the legislation has arisen during the past week, one of the objects of which is the proposed board which, it is declared, would merely add another to the already innumerable list of federal agencies. In general, however, comparatively little interest is being manifested, a feeling seeming to exist that the states should be given an opportunity to show whether they can control production, with the threat of rigid government control in the event they fail.

At a press conference following transmission of his message, President Roosevelt refused to say whether he favored legislation on any point except the compact.

Prospects for oil legislation, apparently dead for the session, were suddenly revived August 5, at a White House conference at which the form of the measure was agreed upon.

Those conferring with President Franklin D. Roosevelt on the oil problem were Secretary of the Interior Harold L. Ickes, proponent of strong Federal control of the industry; Senator Elmer Thomas of Oklahoma, whose pending bill would carry Ickes' ideas into effect; Representative Sam Rayburn of Texas, chairman of the House interstate and foreign commerce committee, and Representative William P. Cole of Maryland, chairman of its oil sub-committee and author of a bill providing for ratification of the interstate compact. Rayburn and Cole are opposed to federal control.

Efforts to enlist the aid of the President were due to the apparent stalemate reached by the oil legislation at the Capitol, where little support was evidenced for Senator Thomas' bill, under which much of the authority formerly exercised as Oil Administrator under the recovery code, would be restored to Secretary Ickes.

Cole Favors State Pacts

In the desire to obtain some sort of legislation making effective the interstate compact, ratified by four states and signed but not ratified by four others, the subcommittee headed by Representative Cole, which last year conducted extensive investigations of the industry, visiting several of the producing states, has also been working on a bill.

The bill prepared by Congressman Cole provides for ratification of the interstate compact, creates a federal petroleum administrative board of five members to be appointed by the President, which will be authorized to study trends in demand and make suggestions to the producing states from month to month as to the quantity of oil they should produce—but without authority to enforce observance of its allocations; provides for the adoption of voluntary codes by the various branches of the industry, empowers the President to limit imports of crude oil and petroleum products, and makes permanent the Connally contraband oil act, now limited to a life of two years.

This measure has never been approved by Secretary Ickes, who has consistently held that the interstate compact would be of little value and that without federal production control no legislation would be effective.

It is understood, however, that it was definitely shown at the White House conference that strong control legislation would be difficult to put through Congress this session and that the best to be expected would be something along the lines of the Cole measure.

Introduction of the legislation August 6, in the Senate by Senator Thomas of Oklahoma and in the House by Representatives Cole and Disney, disclosed four points on which compromise will be necessary, only one of which, however, promises to offer any difficulty.

The House bills seek to give Federal aid to the industry only through the limitation of imports whenever they come in "under such conditions and in such quantities as to render ineffective or materially interfere with any program or operation" under the interstate compact or the Connally law.

Provision is made for an investigation by the proposed Petroleum Administrative Board and, upon its recommendation, for the issuance of orders by the president setting such terms and conditions and such limitations on the total quantity of imports as may be deemed necessary.

Wide Powers to Board

The determination of the propriety of imports, however, is but one of a number of functions to be exercised by the board, which is also to make investigations and collect data, in the gathering of which it is authorized to require the filing of such reports as it may require; cooperate with the states in the study and investigation of matters relating to the industry, and study and investigate the status of petroleum reserves and sources of supply, the discovery and orderly developments of sources of supply, improved methods of production, and the possibility and expense of repressuring existing fields.

The board also is to determine periodically the reasonable market demand for oil to be produced in the United States and to make recommendations to the states as to the production they should allow. The President, further, may transfer to the board any activity of the Federal Government relating to oil.

In making permanent the provisions of the Connally contraband oil act, enforcement of the measure is transferred to the board but no changes are made in the actual machinery for its administration.

As a final instruction to the board, the bill authorizes it to assist in the formation of voluntary agreements which, upon approval by the President, shall be exempt from the criminal provisions of the anti-trust laws.

As a condition to the granting of this

[*Continued on Page 60*]

WRITE REVIEW

Of code operations upon request from President

WASHINGTON, D. C.

A COMPLETE historical review of operations of the petroleum industry under the oil code is being written by the Petroleum Administrative Board and the Petroleum Labor Policy Board in compliance with an order by President Roosevelt for the compilation of a complete report upon each of the codified industries.

While no decision has been reached by the National Recovery Administration as to the publication of the historical reports on the industries under its jurisdiction, Secretary of the Interior Harold L. Ickes, former Administrator of the oil code, plans to have printed and available for distribution the report on that industry.

The oil report, Secretary Ickes declared, will prove valuable "if done objectively, and it will be done objectively."

"The code period, including the formative as well as the operating period," he said, "was an experience of the industry with the Government unlike any prior experience. It raised many practical and legal problems. For example, there were approved by me under the code, 353 plans for the development of new pools or fields. These plans and their operation should be analyzed for the benefit of the industry and the Government, and their usefulness should be appraised even though they now have no sanction.

To Be Complete

"The progress in balancing crude oil supply with demand, the means adopted to bring this about, and the resulting effect upon producers, refiners, marketers and the public should be analyzed and commented upon. The difficult legal problems encountered should be reviewed. The relation of the Connally Act to this subject, and the special situation of California and the West Coast deserve treatment. The Pacific Coast Petroleum Agency and Refiners' Agreements should be studied and can now perhaps be more objectively appraised.

"Refinery control as it developed under the code naturally forms a proper subject for analysis and useful comment. Inasmuch as the administration of the refining article of the code principally was under the Planning and Coordination Committee the National Coordinator has been asked to furnish a separate report on that portion of the code.

"In marketing, the field for analysis of the code experience is varied, almost unlimited. The crude oil cost study is to be completed; the typical marketing area survey in Indiana is also to be completed. We shall also, as long as it appears to be useful, continue the statistical studies relating to demand, imports, exports and domestic production.

"Labor conditions, as to which a great deal is already known from studies already made, and marketing practices, should be made the subject of supplemental field study in the light of voluntary action since the code was invalidated. The field work here entailed is under way but will not be elaborate."

In making these studies, Mr. Ickes said, the suggestions and comments of trade associations, oil companies or individuals with respect to the industry during the period of operation under the code, or changes subsequent thereto, will be appreciated, but there will be "no semblance of compulsion of any kind" upon any organization or member of the industry to furnish data. So far, he added, the department has "almost without exception" been given full voluntary cooperation.

All other activities with respect to the oil code have been discontinued and the only regulatory legislation in effect is the Connally Act, which was enacted separately after the Supreme Court decision in the Panama case had invalidated Section 9(a) of the national recovery act.

MUST ISSUE PERMITS

Commission held unable to suspend action

AUSTIN.

THE Texas Railroad Commission has no power to suspend action on drilling permits, the Texas attorney general ruled in an opinion Friday. The opinion was written by Assistant Attorney General Archie Gray in response to a request from Commissioner Lon Smith. In his letter of request, Smith declared that he would be guided in his action by the ruling, because of the importance of the question. The commission had announced that it would withhold final action on all applications for drilling permits which were exceptions to regular spacing rules, pending action of the Texas Supreme Court on the motion for rehearing in the case of C. H. Brown vs. Humble Oil & Refining Company. The Supreme Court is not expected to meet until October.

In his opinion Gray pointed out that "The judgement rendered by the Supreme Court of Texas in Brown vs. Humble Oil & Refining Company was a final judgement from the date of its entry. The fact that a motion for a rehearing was filed and is now pending does not disturb the finality of the judgement. All parties affected by the provisions of this judgement are bound by the law therein announced. The pendency of a motion for a new trial does not disturb the finality of same. The only order that the commission can make at this time with respect to the court decision is one which would comply with provisions of the decision of the Supreme Court, irrespective of any motion for rehearing that might have been filed and is now pending before that court in this case." Gray said, "It is my opinion that the railroad commission should treat the decision of the Supreme Court as a final judgement, irrespective of the motion for a new trial." No members of the commission were in Austin at the time the opinion was handed down. Since no order was issued by the commission, all that is necessary to alter the announced policy and follow the recommendation of the attorney general is to sign each order allowing or denying permits as it is presented for signature.

CANNOT VIOLATE

Gas waste order pending hearing of merit case

AUSTIN, TEXAS.

THE Cargray Corporation and American Natural Gasoline Company have been restrained from operating in violation of the Railroad Commission's Panhandle gas waste order, pending a hearing of the case on its merits.

This action was taken by Judge M. B. Blair in the Third Court of Civil Appeals after the companies had enjoined operation of the order through an injunction issued by Judge Harry Dolan sitting in the 98th District Court. Hearing on the merits is set for August 14, before the appelate court.

The companies appeared in the District Court last Wednesday through their attorney, Senator Clint Small and Maurice Cheek. Small was the sponsor of the gas waste control bill, House Bill 266, during the time it was being passed by the Texas Legislature, but appeared at this hearing to protest operation of the commission order issued under provisions of the statute.

In making his argument before the court, Small pointed out that the Texas Panhandle Gas Company had enjoined the order in Federal Court. This concern would furnish the normal outlet for residue gas from plants operated by The Cargray Corporation and American Natural Gasoline Company.

Small asked that the order, which he declared was legal and valid, be enjoined pending the hearing before a three-judge Federal Court on the injunction obtained by the pipe line company.

He pointed out that unless his client could use the pipe line as an outlet for residue gas, it would have to shut down or violate the orders of the Railroad Commission.

It was on the basis of this argument that Judge Dolan granted the injunction which was set aside the following day by the appellate court.

REVISE GAS ORDER

Texas Commission issues new gas proration order

AUSTIN, TEXAS

THE Texas Railroad Commission has completely revised its Panhandle gas proration order to include findings of fact as suggested by Federal Judge R. J. McMillan.

At the first hearing attacking the order, the court pointed out that to its mind the findings of fact contained in the body of the order were insufficient to sustain it.

The commission moved promptly to eliminate this weakness and has issued a new order retroactive to August 1. It was this new order which has been enjoined by the Texas Panhandle Gas Company, and will be brought before a three-judge Federal Court which will be convened to test not only the order but the constitutionality of House Bill 266, the new gas waste statute under which the order was issued.

The tentative date for the hearing has been set for August 10, but because Federal judges are on vacation, it is unlikely that this hearing will be held for at least a month.

July Record Good

WITH STOCKS BEING REDUCED WHILE OUTPUT IS RESTRAINED

By JACK LOGAN, Associate Editor

JULY was a month of generally favorable statistics in the petroleum industry. Although there was still an over production of crude in a few areas, the output of the nation as a whole was in line with the market demand. In fact, the supply was so well restricted that important reductions were made in stocks of both crude oil and gasoline, which naturally improved the statistical position of the industry.

Drilling activity was encouraged by the continued satisfactory conditions in the industry and by the maintenance of comparatively favorable prices. During July the volume of field work was the highest of the year with the exception of May, being only slightly under that month.

Although the average daily production has been continually increasing with each month since April, crude oil and gasoline stocks have been decreasing. From June 29 to July 20, crude stocks are indicated to have dropped nearly 4,000,000 barrels; while gasoline reserves were diminishing by nearly 2,000,000 barrels from June 29 to July 27. The Department of Interior, in its weekly reports on crude oil stocks, indicated there were in storage July 20, a total of 316,276,000 barrels, or 3,840,000 barrels less than on June 29; these figures representing 98 percent of all stocks in the United States, exclusive of producers' stocks. The American Petroleum Institute reported that total finished gasoline stocks aggregated some 48,157,000 barrels on July 27, that amount being 1,850,000 barrels less than on hand June 29.

These reductions in stocks, especially of gasoline, are in line with efforts made in the summer of each year to bring inventories down, as seasonal decline in demand approaches. Nevertheless, considerable of the high consumption period still lies ahead, as indicated by the fact that August was the peak month of motor fuel demand last year. Thus the substantial reductions of stocks that occurred as early as July this year were especially encouraging.

In June the average daily production exceeded the federal government estimate of the demand by 44,000 barrels and in July the excess was 46,000 barrels. Since the downfall of the code there have not been federal agency allowables, but the government has been supplying estimates of market demand for crude oil.

Drilling Still High

During July drilling activity continued comparatively high, the month having supplied 60.9 completions daily, including oil wells, gas wells, and dry holes. That daily average was higher than the 58.6 completions per day in June, but did not quite equal the 63.6 wells per day completed in May. The latter month brought the greatest amount of field activity for the past five years, being the highest on record since July, 1930, when completions averaged 76.6 per day.

There was little change as regards the drilling in the individual states and districts compared with the previous month. Texas, California and New Mexico were responsible for the increase of July over June, although none of these were such as to cause any particular comment.

The total for the seven months period of the present year shows approximately 19 percent more completions than for the same period last year. This conforms very closely with the comparison made previously on the first six months period. New Mexico still takes the lead, with 163 completions so far this year as compared with 48 for the same period last year; Arkansas has had 89, as against 42; California has 605 as against 305; and Kansas ranks fourth with 728 as against 520 last year.

Among the few states which fell behind in drilling activity this year, Michigan takes the lead with only 242 wells finished so far as compared with 285 last year. The Rocky Mountain states, exclusive of New Mexico, come next with 113 as compared with 122 last year. Louisiana follows with 416 completions against 442 last year. Texas fell a little under the general average of 19 percent gain for the period, having had an approximate increase of 15 percent. Oklahoma was a little lower, with an increase of about 12 percent. The Eastern States showed a marked improvement.

Production Up Slightly

Production in July showed a slight gain over the month of June, with a daily increase of 11,140 barrels. The total increase for the month represented around 3,028,000 barrels or an increase of approximately four percent over June. The increase was well distributed over the entire oil producing area, with the single exception of Louisiana, which dropped some 66,000 barrels, or around one percent.

A comparison of the production during the first seven months of 1935 with that of the same period in 1934 shows a general increase of 1935 over 1934 of

United States Production

(Based on American Petroleum Institute estimates, which do not include oil which may have been surreptitiously produced.)

MONTH	Daily Average (Barrels)	Federal Estimate of Demand
August, 1933	2,748,100	.....
September	2,568,250	2,413,700
October	2,392,900	2,338,500
November	2,267,243	2,338,500
December	2,266,426	2,210,000
January, 1934	2,233,505	2,183,000
February	2,239,070	2,183,000
March	2,339,950	2,282,800
April	2,420,950	2,366,200
May	2,575,380	2,366,200
June	2,588,100	2,528,300
July	2,560,550	2,530,300
August	2,475,300	2,449,300
September	2,431,950	2,341,700
October	2,364,150	2,325,800
November	2,375,400	2,340,300
December	2,414,600	[1] 2,307,000 [2] 2,460,300
January, 1935	2,500,850	2,460,300
February	2,521,250	2,526,100
March	2,568,800	2,520,300
April	2,559,750	2,527,300
May	2,601,350	2,561,200
June	2,695,100	2,651,000
July	[3] 2,706,240	2,660,000

[1] December 1–16.
[2] December 17–31.
[3] Preliminary subject to revision.

Monthly Summary of United States Drilling and Production, July, 1935

STATE	MONTH OF JULY, 1935						CUMULATIVE, JANUARY THROUGH JULY, 1935					
	Completions	Oil Wells	Gas Wells	Failures	Initial Prod. Bbls. Daily	Total Bbls. Oil Prod.	Completions	Oil Wells	Gas Wells	Failures	Initial Prod. Bbls. Daily	Total Bbls. Oil Prod.
Oklahoma	224	130	11	83	334,559	15,918,000	1,281	799	70	412	1,736,726	106,103,150
Kansas	124	72	6	46	41,641	4,600,350	728	517	18	193	366,969	30,981,900
Texas	1,251	947	29	275	3,776,434	32,719,950	6,764	5,068	153	1,543	19,712,156	28,920,900
Louisiana	64	27	11	26	10,807	4,364,650	416	202	46	168	92,656	26,691,950
Arkansas	5	1	....	4	90	947,800	89	37	2	50	6,619	6,557,200
Southeastern States	1	....	....	1	.....	.....	11	....	3	8	.....	.....
Eastern States	258	92	93	73	1,939	3,270,500	1,394	410	617	367	9,020	22,353,500
Michigan	51	24	8	19	14,842	1,365,050	242	126	39	77	40,248	8,171,600
Rocky Mountain States	33	27	1	5	4,405	1,726,000	113	88	5	20	33,494	10,679,700
New Mexico	27	19	....	8	60,394	1,659,250	163	120	5	38	361,278	10,554,800
California	93	73	12	8	136,333	17,321,900	605	426	24	155	516,438	108,475,747
Totals	2,131	1,412	171	548	4,381,444	83,893,450	11,806	7,793	982	3,031	22,875,604	549,490,447

United States Drilling and Production in First Seven Months of 1935, Compared with Similar Period in 1934

STATE OR DISTRICT	WELLS COMPLETED			BBLS. OF CRUDE PRODUCTION		
	In 1935 (7 Mos.)	In 1934 (7 Mos.)	% Change	In 1935 (7 Months)	In 1934 (7 Months)	% Change
Oklahoma	1,281	1,135	+ 13	106,103,150	105,176,600	+ 9
Kansas	728	520	+ 34	30,981,900	26,218,800	+18
Texas	6,764	5,859	+ 15	218,920,900	208,366,650	+ 5
Louisiana	416	442	− 6	26,691,950	17,019,700	+56
Arkansas	89	42	+112	6,557,200	6,630,850	− 1
Southeastern States	11	22	− 50	.....	.....	.....
Eastern States	1,394	1,173	+ 19	22,353,500	20,850,650	+ 7
Michigan	242	285	− 15	8,171,600	6,136,650	+33
Rocky Mountain States	113	122	− 7	10,679,700	8,935,450	+19
New Mexico	163	48	+239	10,554,800	9,470,600	+11
California	605	305	+ 98	108,475,747	102,532,150	+ 6
Totals	11,806	9,953	+ 19	549,490,447	511,338,100	+ 7

about seven percent, or some 5,944,000 barrels. Louisiana shows the highest gain in 1935, with an increase of 56 percent for the period. This was the result of the activity on the Gulf Coast. Michigan showed the next highest increase, with a 33 percent gain for the period; and the Rocky Mountain states were next, with a 19 percent increase. Kansas, New Mexico, and Oklahoma were next in the order named, with the Eastern States showing a gain the same as the country as a whole. California and Texas were a little under the general average. The only state not to show increased production in 1935 was Arkansas, which dropped under the production of the first seven months of 1934 by about one percent.

The increase in production in California has caused considerable comment, but really is not alarming when the situation is clearly considered. The Bureau of Mines, in its report on the Pacific Coast territory for June, showed that California production was practically in balance with demand. The state's output increased to 557,000 barrels daily in June from 495,000 barrels daily in May. Yet with this increase, only a total of 49,000 barrels daily were added to storage. In May, when the government oil code was still functioning, 69,166 barrels daily were withdrawn from storage.

In July, California production control was apparently more successful than in June. The Department of Interior, in its weekly reports showing 98 percent of crude oil stocks, exclusive of producers' stocks, revealed that 30,203,000 barrels were in storage in California on June 29, while on July 20, the stocks had dropped to 29,734,000 barrels.

Prices Cut Locally

July was a month of considerable disturbance in the markets. Crude prices were cut slightly, ranging from five to 15 cents per barrel, in South Texas, Pennsylvania, and Montana. The South Texas and Montana cuts were directly attributable to some excess of crude production. The Pennsylvania cut presumably also reflected excess output. In California there was also some talk of a possible reduction in crude prices on account of excess output, but voluntary proration functioned with fair success, and consequently price cutting was avoided.

In the latter part of July, the crude markets had recovered somewhat from the disturbances, as reductions in crude production allowables were ordered by state authorities in the Mid-Continent, and as California continued to achieve restriction of output with fair effectiveness. However, there continued to be some concern over excessive production in certain districts. Areas where crude markets remained soft included New Mexico, the Texas Panhandle, and a few other districts. Also, North Louisiana, with the newly discovered Rodessa field, was causing some anxiety.

Gasoline Prices Favorable

Despite the unsettled state of the crude markets, there was evidence during July of a fairly strong undertone in the general market situation. This was indicated by the comparatively high prices that prevailed on gasoline. In the Mid-Continent, wholesale gasoline prices were at or near the peak levels of the year. And throughout the region east of California retail prices for gasoline remained favorable. In California the gasoline markets, wholesale and retail, were somewhat depressed. But in the latter part of the month there was some hope for improvement in the West Coast situation. The Mid-Continent tank car prices in effect in July were not only near the peak for 1935, but also were about the highest since the latter part of 1930, although there was a brief period in September, 1933, when prices were about the same as in July.

Motor Fuel Stocks

(American Petroleum Institute figures, as shown in weekly reports)

DATE	Motor Fuels Stocks, Bbls.
September 9, 1933	50,913,000
September 30	50,457,000
October 28	52,727,000
November 25	51,934,000
December 30	51,580,000
January 27, 1934	50,229,000
February 24	55,976,000
March 24	57,879,000

After March 24, 1934, figures shown represent stocks of finished gasoline, to be marketed as motor fuel, including natural gasoline which has been blended, and gasoline made from refinery still gases.

March 24	57,011,000
March 31	57,098,000
April 28	56,011,000
May 26	54,493,000
June 30	51,405,000
July 28	48,597,000
August 25	46,120,000
September 29	43,850,000
October 27	41,993,000
November 17	*39,892,000
December 1	40,831,000
December 29	43,969,000
January 26, 1935	47,888,000
February 23	54,399,000
March 2	55,654,000
March 30	56,388,000
April 27	55,097,000
June 1	53,180,000
June 29	50,007,000
July 27	48,157,000

*Low point of year.

Crude Oil Stocks

Bureau of Mines figures as compiled monthly, comprising all crude in storage in the country.

At End of:	Total Bbls. In Storage
August, 1933	360,001,000
September	359,979,000
October	356,885,000
November	355,614,000
December	355,394,000
	*354,305,000
January, 1934	353,642,000
February	531,641,000
March	354,067,000
April	354,350,000
May	355,883,000
June	357,239,000
July	355,260,000
August	350,838,000
September	348,937,000
October	346,415,000
November	341,165,000
December	337,254,000
January, 1935	338,174,000
February	337,319,000
March	339,139,000
April	339,793,000
May	338,559,000

*On revised basis, 1,089,000 barrels having been transferred from crude to fuel oil in California.

Trend of stocks situation since end of May, figures being from weekly reports to Federal government, embracing 98 percent of total stocks, excluding those of producers.

May 25	323,379,000
June 29	320,116,000
July 20	316,276,000

Wells Completed in the United States

(Including oil wells, gas wells, and dry holes)

MONTH	Daily Average
January, 1933	30.0
February	30.6
March	26.6
April	25.5
May	25.6
June	21.1
July	23.1
August	30.7
September	36.5
October	40.9
November	46.9
December	47.7
January, 1934	39.7
February	38.1
March	40.6
April	44.0
May	50.7
June	51.5
July	53.6
August	51.3
September	43.2
October	49.6
November	49.9
December	48.3
January, 1935	47.9
February	49.6
March	48.8
April	58.5
May	*63.6
June	58.6
July	60.9

*Highest since July, 1930, when completions averaged 76.6 daily. Average dropped in August, 1930, to 52.4 and remained below that figure until July, 1934.

LICENSE REQUIRED

On interstate commerce business by new bill

WASHINGTON, D. C.

LEGISLATION requiring the licensing of all business establishments whose activities in any way impinge upon interstate commerce, to be administered by an enlarged Federal Trade Commission authorized to issue regulations for the protection of labor and maintenance of fair standards of competition, is provided for in a bill introduced in Congress August 5, by Senator O'Mahoney of Wyoming.

The measure is largely concerned with the protection of investors, and would make every director of every corporation a trustee for the stockholders, liable to them in actual and punitive damages for unconscionable profits which he may secure by means of his power. Payment of bonuses or commissions is prohibited except by vote of the stockholders, and all stock is to have equal voting power, with "widows' and orphans'" stock protected by accredited corporation representatives certified by the commission but free from government direction, who will serve on proxies from stockholders.

Protection against the manipulation of corporate funds for the benefit of the management is sought by a provision that the surplus shall not be permitted to exceed a given proportion of the capital stock and when dividends have not exceeded ten percent the surplus is to be distributed to the stockholders. Where dividends exceed ten percent a profit-sharing plan for the employes is to be adopted.

All corporations would be under strict Federal control.

TENDER APPLICANTS

Must show gasoline tax receipt when applying

AUSTIN, TEXAS.

THE Texas Railroad Commission has issued an order effective August 5, requiring all applicants for tenders on gasoline and other products to produce a certified report from the state comptroller indicating the amount of gasoline taxes paid the previous month.

This action was taken shortly after the conclusion of the hearings in Austin before the legislative hot oil investigating committee. At these hearings it was shown that in some instances operators reported to the Railroad Commission production of a certain amount of gasoline, and paid tax to the state comptroller on a much larger amount. The new plan is expected to eliminate this practice.

The order provides that " . . .no tender on refined products shall be approved in the State of Texas unless and until a certificate from the Comptroller's offices has been supplied and offered in the record as a part of the application for the tender. This certificate shall be attached to the application . . . (and) shall show the quantity of gasoline on which applicant has paid taxes for the preceding calendar month. This certificate shall be returnable with all gasoline tenders applied for on and after the 20th day of each calendar month. . . .

"Upon proper showing to the Texas Railroad Commission that the gasoline is actually destined for interstate or foreign commerce, this certificate will not be required."

In order that the commission may have a starting point, the order requires a statement showing monthly runs from January 1 to May 31, 1935.

" . . . thereafter it will only be necessary to attach to tender applications the certificate from the comptroller's office for the preceding calendar month or a proper reference to such certificate if already filed for that preceding month. Where tax certificates are required by this order, the applicant may at his election file in lieu thereof his gasoline receipt from the Comptroller's office for the period covered.

"Where applicant has acquired possession of refined products for which tender is requested, then such applicant shall attach to such tender application a proper showing by certificate of the Comptroller of Tax Receipts showing gasoline upon which taxes have been paid."

AGAINST CONTROL

States Texas governor in wire regarding Cole bill

AUSTIN, TEXAS.

GOVERNOR James V. Allred has wired Texas Senators in Washington declaring his opposition to the establishment of any federal board to control oil production, such as is proposed in the Cole bill now pending in Congress.

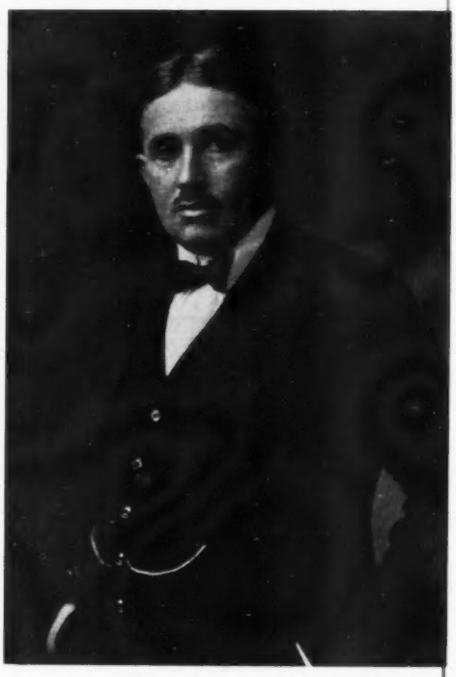
"I am opposed to the establishment of any board to look into market demand and advise us of any artificial demand," Allred declared.

"It is just an entering wedge for federal control if the states fail to follow the suggestions of the board. I am also unalterably opposed to placing jurisdiction over such a board in the Department of the Interior."

The Governor pointed out that the last committee organized had 15 members, only one of which was from Texas. Some oil states had as many as four members on this board, Allred said.

Rieber Texaco Head

Succeeds Ames As Board Chairman

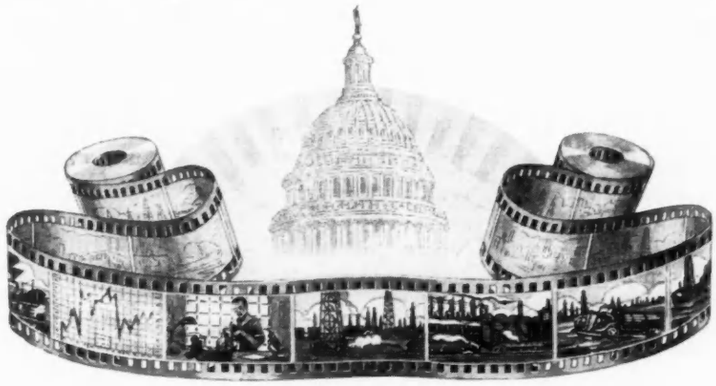


New York.

ANNOUNCEMENT was made Friday following a regular board of directors meeting of The Texas Company that T. Rieber had been elected chairman of the board. Mr. Rieber in recent years has been vice president of the company, and manager of the export and marine departments, as well as a member of the company's board of directors and executive committee.

Mr. Rieber, who was born at Bergen, Norway, on March 13, 1882, holds the distinction of being master of one of the first tankers to load oil from the famous old Spindle Top field. His first connection with The Texas Company came about in 1905, when the company purchased the tanker of which he was master. He served in various capacities in the marine and refining department until January, 1919, when he resigned to join the J. S. Cullinan interests, where he remained until October, 1927. During this period he became president of Galena-Signal Oil Company of Texas and vice president of American Republics Corporation. He resigned the latter position in 1927 to become vice president of The Texas Company in charge of the export department, and has taken an active part in the management of The Texas Company affairs since that time. He succeeds C. B. Ames, recently deceased.

The Changing Panorama



THE OIL WEEKLY'S COMPOSITE VIEW OF INDUSTRY

Edited by JACK LOGAN, Associate Editor

VARIOUS important developments unfolded last week for the petroleum industry. Among them were the following: (1). Numerous figures came to light, showing that oil company earnings in the first six months of 1935, were generally the highest for the past five years. (2). New federal regulation of crude oil production began to appear quite possible, as Congressional leaders and President pushed the lately proposed Cole bill. (3). Further progress was made toward adopting a voluntary oil marketing code under the Federal Trade Commission.

Earnings Are Higher

Reports direct from the oil companies and from the WALL STREET JOURNAL, tabulated and analyzed for comment here, show that for the first six months of this year, 14 oil concerns had aggregate profit of $28,283,434, compared with $21,601,966 in the like period last year, a gain of about 33 percent. The 1935 half-year results represented the best for those companies since 1930. These figures fulflll predictions offered in these columns at various times during the past three months or so.

Among the 14 companies represented in this analysis of earnings, all but two showed profit the first half of this year, while in the like period last year, the same two companies and also one other failed to show profit.

The two with loss in each year were Texas Pacific Coal & Oil Company and Panhandle Producing & Refining Company, while Shell Union Oil Corporation had profit this year, against loss last year. Companies showing profit in both years included: Standard Oil Company of California, Union Oil Company of California, Superior Oil Corporation, Phillips Petroleum Company, Seaboard Oil Company of Delaware, Continental Oil Company (Delaware), Sun Oil Company, Amerada Petroleum Corporation, Mid-Continent Petroleum Corporation, Texas Gulf Producing Company, Atlantic Refining Company.

While the half-year results were substantially better this year than last for all the 14 companies in the aggregate, there were five of the 14 while did not conform with the general picture, showing profit, but less than in last year's first half. Those five companies with less favorable results included: Sun, Amerada, Mid-Continent, Atlantic, and Texas Gulf Producing. All the other nine companies here considered did better this year than last.

Second Quarter Better

In comparing second quarter earnings for 1935 with those in 1934, trends were similar to those in the six-months' comparison. Quarterly figures are available on only 11 of the companies considered. In the aggregate, those 11 companies earned $16,665,478 in the 1935 second quarter, compared with $9,892,186 in the like period last year. Of the 11 companies, seven did better this year than last, in the second quarter: Standard of California, Union Oil, Phillips, Seaboard, Shell Union, Continental, and Texas Pacific; while four earned less: Superior, Amerada, Mid-Continent, and Atlantic.

Several companies not included in the above survey, in absence of comparable figures, or because of late release of figures, also tend to bear out the trends herewith discussed. For instance, improved earnings this year, compared with last, are indicated for Skelly Oil Company, Pure Oil Company, and Tide Water Associated Oil Company and subsidiaries.

Federal Regulation Proposed

It appears quite likely that Congress will shortly enact the Cole oil-control bill, that was introduced suddenly last week. In some quarters the bill is opposed, on the grounds it would be the entering wedge for eventual federal domination of the industry. It is feared that the board which would be set up, independently or under Secretary Ickes, would be thirsty for power.

Others believe, however, that this danger is more than offset by advantages. They say the bill actually would not permit, although it might encourage, the feared domination. Advantages, they state, would include these: (1). The measure would give the needed federal

sanction of the interstate oil compact. (2). It provides for needed restriction of imports. (3). It would put the generally approved Connally Act, for barring hot oil from interstate commerce, on a permanent basis.

Marketing Code Pushed

Efforts to put the oil industry on a stable basis are comprehensive. The producing branch, already under fairly effective restrains, would be further stabilized under the Cole proposal. The marketing branch, traditionally hard to keep stabilized, would be bettered under plans to adopt a revised oil marketing code, under Federal Trade Commission supervision. In September, meetings will be held, in an effort to get the industry to agree on a code that has been approved by directors of the American Petroleum Institute. If and when agreed on, the code will be presented to the trade commission for official adoption.

Oil Markets Favorable

Prices of oils, crude and refined, were mostly unchanged last week, although kerosene tank car prices in the Mid-Continent showed some further improvement. Gasoline prices at Mid-Continent refineries continue at peak levels of the year, being almost up to late 1930 levels. Prices have been such in the opening half of the 1935 third quarter, as to indicate that oil company earnings for the period will further extend the good record of the first half of the year.

Stimulating Oil Influences

STATISTICS FAVORABLE—Encouragement is offered by Bureau of Mines statistics on oil covering the first six months of 1935. At the end of June, stocks of all oils were 21,755,000 barrels lower than a year previously, reflecting effective control of production and imports. Total demand for oil in the first six months of 1935 was nearly three percent greater than in the like period last year, with export as well as domestic demand higher. Domestic demand for gasoline has been this year at all-time record levels, having run 3.3 percent ahead of last year.

MORE OIL BURNERS—In the first six months of 1935, total shipments of oil burners by manufacturers were 30 percent higher than in the like period of 1934, and 44 percent higher than in the same period of 1933. The shipments in June, 1935, exceeded those in May, 1935, and were around 70 percent higher than for both June, 1934, and June, 1933. Total burners shipped in January-June, 1935, were 44,462, according to the Department of Commerce; and June, 1935, shipments totaled 10,556.

AIR EXPRESS—United States air lines plan to unify under a single pick-up and delivery agent, the Railway Express Agency, to increase their express revenue. Such revenues now account for less than five percent of total gross.

ASPHALT FOR ROOFS, ROADS—The asphelt phase of the oil business has a promising outlook. Expanding residential construction is bringing greater demand for roofing materials. And the federal and state governments are preparing to start heavy road building construction, which will involve use of asphalt.

TRAVEL INCREASING—With the public spending more money than for some time for travel and recreation, automobiles are being operated more. Demand for gasoline and oils is thereby stimulated.

TRUCK SALES HIGH—June sales of motor trucks were highest in history for that month. Total 1935 sales are expected almost to equal, if not to exceed, those of 1929, peak year.

AUTO BUSINESS GOOD—Automobile companies have had remarkably favorable records in sales and profits this year, generally surpassing results in the similar period last year. Not only the leaders but also independent companies have made good showings. During June, factory sales of automobiles in the United States totaled 361,320, compared with 306,477 in June, 1934, reports the Department of Commerce.

General Business Encouraging

FURTHER GAINS PREDICTED—The noteworthy recovery of the past several months will be extended, and autumn will bring a substantial rise in trade and industrial activity. This is the prediction of the American Bankers Association in its publication, BANKING. Says the medium: "It is evident that business is upset less and less by legislative threats and the prospect of more governmental regulation, and is disposed more and more to rely upon time-proved business principles."

ELECTRICITY—Electric output lately has been running around the all-time peak levels, set in 1929.

BOOMING—Typewriter makers are operating plants near capacity. Consequently, some have cancelled vacations for workers.

MORE MACHINES, FEWER JOBS—If unemployment and depression go hand in hand, the United States hasn't even started around the corner beyond which lies prosperity. Instead of progress toward greater employment, there is retrogression, due mainly to increasing use of machines. More goods are being produced than formerly. But fewer people are required to produce them. Moreover, the workers are being paid less, in the aggregate, for their work.

Here are figures to back up these statements: As compared with May, industrial production during June was up one point, on the Federal Reserve index. Industrial employment was down 1½ points on the Labor Department's index. Conversely, unemployment was up one percent, according to the National Industrial Conference board estimate. Meanwhile, payrolls declined more than unemployment.

Helping to explain these developments is the fact that the machine tool industry, especially active since last fall, now is the busiest for the past four years, making tools that permit greater industrial output with fewer workers. Unemployment now is six percent greater than a year ago, according to the National Industrial Conference Board, which estimates the number of unemployed at 9,804,000. The American Federation of Labor estimate is about a million higher.

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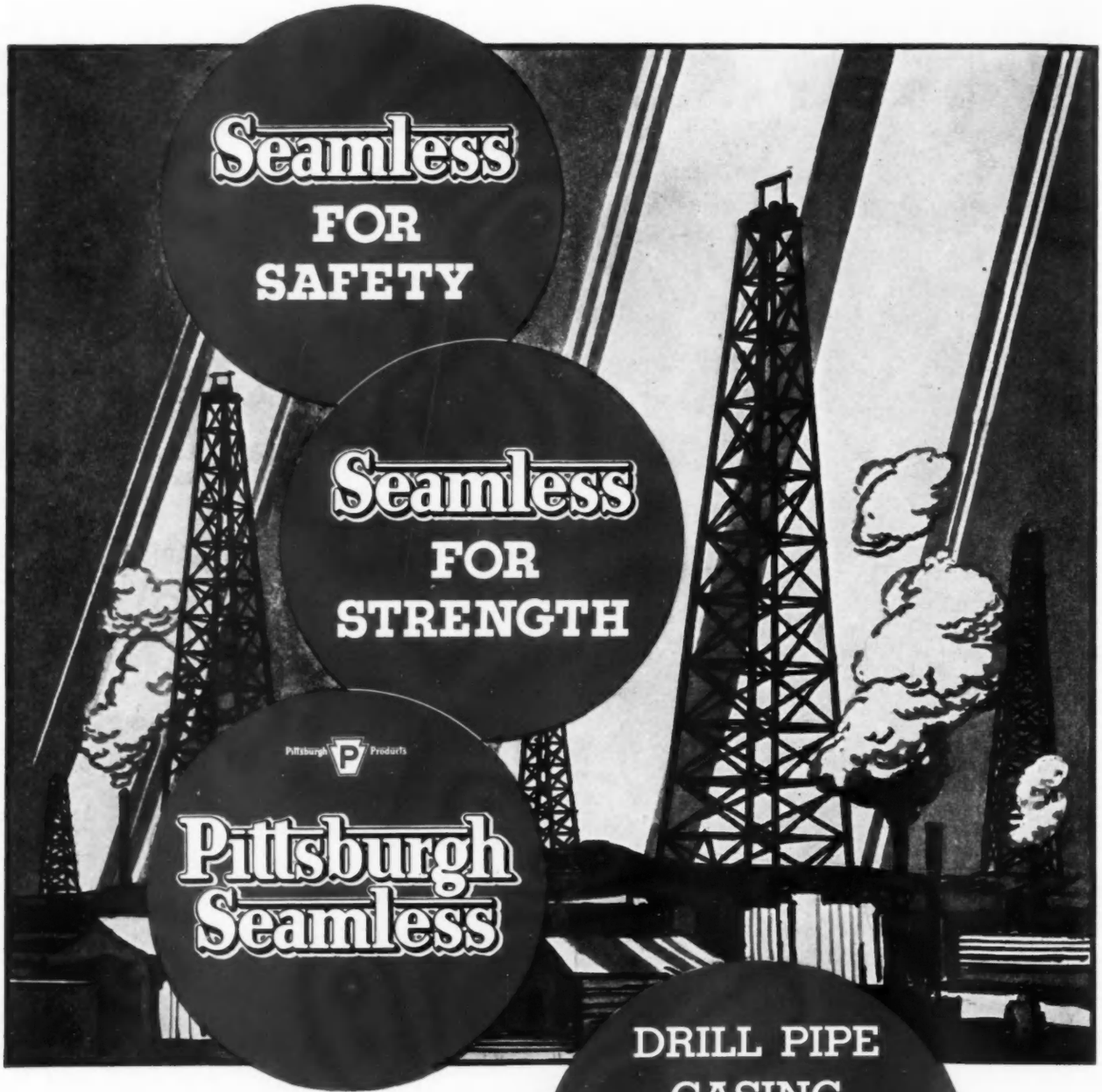

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Only the yardstick of endurance can measure the economy of drill pipe and casing. On this score Pittsburgh Seamless takes a high rating in every well-known field. From job to job . . . from one tough assignment to another . . . millions of feet of "Pittsburgh" have moved on to bigger and better records for durability . . . and economy. Quality of steel and perfection of manufacture are the reasons for the long-lasting qualities of Pittsburgh Seamless Drill Pipe, Casing and Tubing.

MEN IN THE INDUSTRY'S NEWS

L. S. SINCLAIR, comptroller and secretary of the Magnolia Petroleum Company and Magnolia Pipe Line Company, Dallas, has been elected vice president of both companies, but relieved as secretary. Guy L. Tate, former assistant secretary, and an employe since 1911, has been elected secretary of both companies. Sinclair is also a director, and last June was nominated to assist President D. A. Little in the management of the companies.

FREDERICK G. CLAPP, who has been conducting geological studies in the West Indies, has returned to the United States, and is dividing his time during the summer between his New York office and his vacation home in Duxbury, Massachusets.

L. A. OGDEN, who has been production engineer in Pure Oil Company's South western Producing Division with headquarters in Tulsa, has been transferred to Fort Worth. He will be production engineer for the Texas Producing Division. Mr. Ogden is chairman of the Mid-Continent Section of the American Institute of Mining and Metallurgical Engineers.

CHARLES NOBLE, chief scout for Superior Oil Producing Company, Houston, is back at work after spending several weeks in the hospital and at home due to illness.

R. N. SCOTT, assistant drilling superintendent of Burmah Oil Company, Ltd., Digboi, Upper Assam, left Los Angeles August 1, by automobile for Portland, where he will catch a steamer for Calcutta.

HARRY H. JOHNSON, scout and land man for Gulf Production Company in West Texas with headquarters at Midland, has been transferred to the operating headquarters of the company at Houston.

CLIFF WRIGHT, district engineer for Indian Territory Illuminating Oil Company at Oklahoma City, was suffering early in the week from an attack of appendicitis and may have to submit to an operation.

H. C. GEORGE, head of the petroleum engineering department of the University of Pittsburgh, has been visiting the oil fields of Wyoming and Montana during the past month. During August he will visit some of the oil fields of Kansas, Oklahoma and Texas.

E. V. HEWITT, division mechanical engineer for Shell Petroleum Corporation, Iowa, Louisiana, has accepted a position as construction engineer with J. Ray McDermott & Company, engineers, contractors and builders of rotary derricks and standard rigs. Mr. Hewitt will reside in Houston.

GENERAL PASCUAL ORITZ RUBIO APPOINTED GENERAL MANAGER OF PETROLIO DE MEXICO

APPOINTMENT THOUGHT TO INDICATE MEXICO WILL CONTINUE ITS HOLDING POLICY

GENERAL PASCUAL ORITZ RUBIO

APPOINTMENT three weeks ago of General Pascual Ortiz Rubio as general manager of Petrolio de Mexico, S. A., is generally regarded by operators in that country as an indication that the national government is determined to proceed with the policy of holding Mexican oil for Mexicans. Rubio is one of the strongest men in Mexico, and was named to succeed Primo Villa Michel by President Lazaro Cardenas.

No man in Mexico has had a more diverse experience than Rubio. He was educated as an architect and engineer, but entered politics early in life. He was born on March 10, 1877, at Morelia (then Vallodolid), in the State of Michoacan de Ocampo. During the Madero regime, Rubio served in the National Congress as deputy from the second district of Morelia. In 1917 he was Governor of his state. In 1921 he was named Secretary of State; 1923 found him in Germany as the Mexican ambassador, and later he served at the same post in Brazil. Meanwhile Rubio had maintained his military connections, having been promoted to a captain in 1911, and by 1920 he had been advanced to brigadier general. Rubio was elected president of Mexico on February 5, 1930, and served until September 3, 1932, when he resigned. He was succeeded by President Rodriguez.

At the conclusion of his term in the presidency, Rubio moved to the United States. He was appointed to his new post in the oil company shortly after his return.

There is now under consideration by government officials a plan to fix the price of gasoline at 17 cents (Mexican currency) per liter, which foreign companies declare will put them out of business. These concerns point out that the Mexican company headed by Rubio, whose stock is held exclusively by Mexican citizens, will not be required to bear the full burden of taxes which foreign-owned companies must pay.

For this reason the Mexican company alone will be able to operate profitably and sell gasoline at the price which the government proposes to fix. This price amounts to 4.722 cents per liter in American money, or 17.56 cents per gallon.

Most foreign operators expect that if any plan is instituted by the government to recover Mexican oil for the benefit of nationals, it will follow this procedure, rather than the plan formerly suggested which would have been confiscation of oil properties by the government.

H. B. THOMSON, production engineer in the Texas Producing Division of Pure Oil Company with headquarters at Fort Worth, has been assigned to a similar position at Saginaw, Michigan, with the company's Michigan Producing Division.

C. L. GLADDEN, vice-president for Magnolia Petroleum Company and assistant general manager in charge of production, and Joe Klichenstein, division production superintendent, both of Dallas, visited the South Texas district last week. They were accompanied by Roy L. Tribbey, recently transferred from Gladewater to Sinton, as superintendent of the company's new production district there.

G. A. FRITTS, storekeeper for Carribean Petroleum Corporation of Venezuela, accompanied by Mrs. Fritts, arrived in Los Angeles on the Grace Liner, Santa Rosa, August 5, and will spend the next several months in Long Beach.

TOM GAILBRAITH, district geologist for The California Company, San Antonio, spent several days in Houston recently.

L. B. HERRING of Tyler, recently appointed chief of the geological department of Ranch Oil Company, has moved to Corpus Christi to represent that concern. He was associated with Marland Oil Company in Kansas, Oklahoma and Texas before the merger of that firm with Continental Oil Company. He then became geologist for McElreath and Sugget, Fort Worth. Five years later, he resigned to do consulting geological work, in which he has been engaged for the last 18 months.

A. C. WILHELM, Kirby Petroleum Company, Houston, visited Southwest Texas last week.

BUCK WEAVER of Carribean Petroleum Company, Maracaibo, arrived in Los Angeles July 28, and will spend his vacation at Long Beach.

J. H. McLAREN, scout for Phillips Petroleum Company, has been transferred to Corpus Christi, to scout that section of the South Texas Gulf Coast. He is from Houston but has been in San Antonio several weeks relieving H. K. Greenleaf, who had been on vacation.

PAT V. HITT, land department of Shell Petroleum Corporation, Houston, was in the Sinton-Corpus Christi district last week.

E. G. "TY" DAHLGREN, chief clerk for the Oil & Gas Conservation Department of the Oklahoma Corporation Commission, has returned to his native haunts for a two-week's vacation among the lakes of Wisconsin.

WESLEY GISH, district manager in Texas for Sinclair Prairie Oil Company, H. S. Smith, district geologist at Fort Worth, and L. M. Oles, panhandle district geologists, were recent business visitors in Tulsa, the company's general headquarters.

LAWRENCE "DOC" McGEE, in the land department of Carter Oil Company, spent several days in Oklahoma City during the week. "Doc" formerly scouted that district and was for a number of years in southern Oklahoma.

ROBERT R. NEWCOMB, petroleum geologist for the Geological Survey Division, State Conservation Department, State of Michigan, for the past eight years, has resigned to accept the position of geologist and vice president with Associated Petroleum Company of Detroit.

G. D. GUNN, effective August 1, was made assistant to the superintendent in the Oklahoma City district of Phillips Petroleum Company. Effective as of the same date Earl Griffin was made district foreman for West Texas and New Mexico with headquarters at Midland, Texas.

ROY ROWLEY, with Texas Pipe Line Company, has been transferred from Longview to Corpus Christi. He is a brother of Ken R. Rowley, with United Production Corporation, Corpus Christi.

P. S. GILMAN, president, American Trading Company of Shanghai, China, accompanied by Mrs. Gilman, is in the States on a round the world tour. American Trading Company is importer of American machinery and equipment.

F. L. GEHR, superintendent of production for Stanolind Oil & Gas Company in West Texas with headquarters at Midland, has been transferred to the Houston district office. L. E. Sloan, superintendent at Wink, Texas, has succeeded Gehr at Midland.

KENNETH A. COVELL RETURNS TO MID-CONTINENT AREA

KENNETH A. COVELL

KENNETH A. COVELL, who has been assistant chief petroleum engineer for Pure Oil Company at Chicago, has been transferred to Tulsa to become production engineer for the company's Southwestern Producing Division. Mr. Covell is well known in Mid-Continent engineering circles, as he was chief petroleum engineer for Indian Territory Illuminating Oil company until the latter part of 1932, when he joined Pure Oil Company.

DR. DONALD F. MacDONALD, geologist of Nova Scotia, is making a survey of the Trail Blazer field near the Saskatchewan border in Canada.

J. H. HARLAN, Beaumont, Texas, cashier of Sun Oil Company, South Texas Division, and assistant secretary-treasurer of Sun Pipe Line Company, returned August 1 from a six weeks vacation, most of which time was spent at sea on one of the company's tankers. Mr. Harland spent about four days in France. He remarks that anyone going there should remember that France is still on the gold standard, and that consequently the American dollar is worth exactly 59 cents in that country.

EARL MILLER of American Iron & Machinery Company of Oklahoma City, is spending a vacation in California.

EARL FOSTER has succeeded Edwin Dabney, resigned, as chief attorney of the oil and gas conservation department of the Oklahoma Corporation Commission. Mr. Foster several years ago was county attorney in Creek County. He first attracted attention of oil companies when he almost single handed prosecuted a ring of oil equipment thieves. He went from Sapulpa to Oklahoma City as a Supreme Court commissioner, and has lived there a number of years. He now is a member of the school board of Oklahoma City, a position he will try to retain along with his new position. He recently took an active part in extension of the Oklahoma City drilling zone farther northward into the city limits.

HOMER D. BARKER, independent operator of Robinson, Illinois, died recently. Mr. Barker was born August 1, 1886, at Highland, West Virginia. In 1902 he entered the employment of Pure Oil Company, and four years later was transferred to Casey, Illinois, for the same company. In 1910 he resigned to enter the oil business on his own, and returned to West Virginia. Two years later he came back to Illinois, where he remained an independent producer until his demise.

BYRON B. NORRIS, who has for several years been connected with certain state departments in California as a petroleum engineer, recently resigned his position, and has opened an office as a consulting engineer at 332 I. N. Van Nuys Building, Los Angeles.

E. J. GRACEY and Edgar Younger of Younger Brothers, drilling contractors of Houston, were recent Southwest Texas visitors.

L. E. DAMON, Houston independent operator, has been in Southwest Texas in view of carrying on operations in the territory.

W. L. MASSEY of Houston, petroleum engineer for the Texas Railroad Commission, has been transferred to San Antonio, to be in charge of all enforcement work in District 1, 2 and 4, now being handled through San Antonio, Refugio and Corpus Christi, respectively. While no definite announcement has been made, it is considered that this appointment is the move on the part of the Railroad Commission to consolidate proration supervision into general districts over the state.

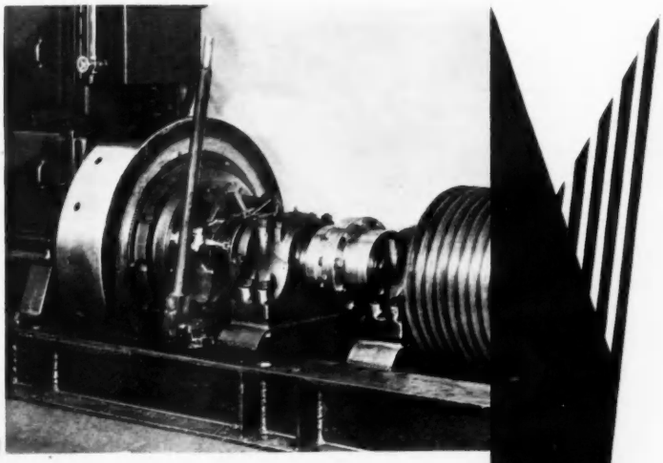
JAMES P. ANDERSON, vice president of Humble Pipe Line Company, Houston, sailed last week for a vacation tour of Europe.

P. C. JONES, president, and D. R. Dale, chief engineer, for the S. M. Jones Company of Toledo, Ohio, were recent Tulsa visitors in a general sales conference with H. K. Browning, general sales manager of Tulsa.

W. D. SHAFFER, president and owner of Shaffer Tool Works, Brea, California, returned to California August 1 from a two weeks pleasure trip to Mexico City. He was accompanied by Mrs. Shaffer.

S. B. SCHNITTER, who represents Byron-Jackson, Baker Oil Tool Company, Link Belt and Trumble Gas Trap in Venezuela, is in California for several weeks, accompanied by his wife and daughter.

No. 8100—24 in. 2-plate
CR Twin Disc Clutch



350 hp. SUPERIOR DIESELS — TWIN DISC EQUIPPED FOR ROTARY DRILLING

This Superior Diesel Engine — 8 cylinder, 9 in. bore x 12 in. stroke, 600 rpm. 350 hp. — made by the National Superior Company, Springfield, Ohio, is equipped with a No. 8100 — 24 in., 2-plate CR Twin Disc Clutch.

We will let the Superior Engine Division of the National Superior Company tell you why. They say, "we selected the Twin Disc Clutch as it worked in well with our design, making a very compact unit. We have found from tests and experience that it is efficient and reliable with a low maintenance cost, easily adjusted, and requires a minimum amount of attention."

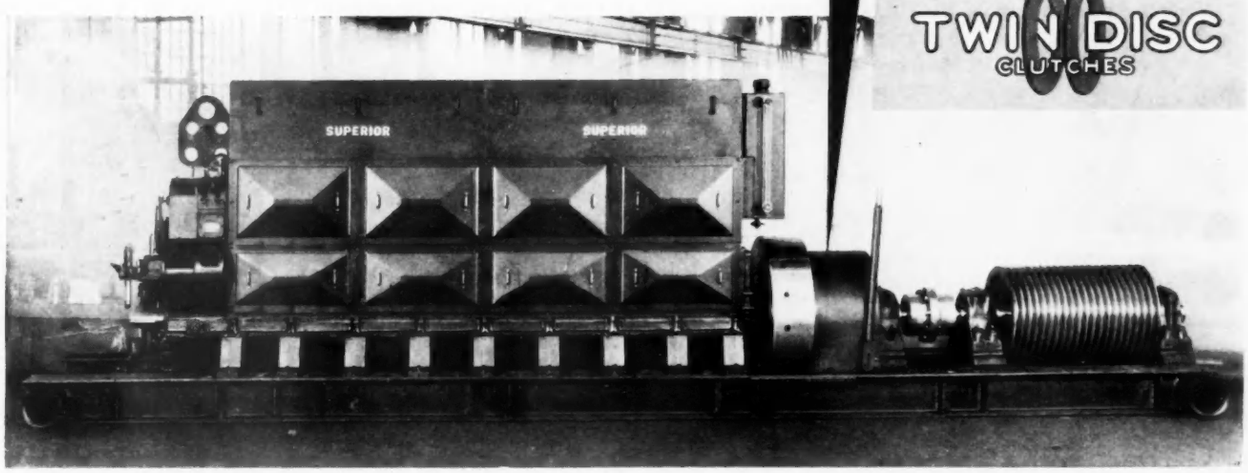
Write* for specific recommendations. Engineering Data on request. *Twin Disc Clutch Company, 1336 Racine St., Racine, Wisconsin.

SALES and SERVICE

***Fort Worth:* Jno. Mueller Co., 312 Throckmorton**

***Tulsa:* Buda Engine Service Co., of Tulsa, Inc.**

TWIN DISC CLUTCHES



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TIGER BRAND WIRE LINES

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..AND THE REASON IS NO SECRET"

"WHY am I so certain? Well—you see I've not only used Tiger Brand Wire Lines for every use from drilling to production—but I've had an opportunity to see how they're made. The American Steel & Wire Company, you know, has been supplying Wire Lines to the oil fields for many years. Their engineers have studied every angle of the problems we're up against—and they've designed a type and size of line to meet our every need. In addition—the control of raw material from mine to manufacture means the kind of quality that saves us many dollars on the job. Yes—you'll save money with Tiger Brand Wire Lines—and the service back of them will save you time and trouble."

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PENETRATING BOULDERS IN GLACIAL DRIFT FORMATION MOST TROUBLESOME PROBLEM IN

Drilling at Crystal

By JOHN C. ALBRIGHT

THE most difficult drilling feature in Michigan, and particularly in the Crystal field, is encountered while penetrating the overlying surface formation known as the Glacial Drift. This formation was deposited by glaciers during the ice age and was brought down from sections further north. It is made up generally of gravel, sand and clays, filled at different levels with granite boulders of varying size. The troublesome boulders occur at different points, some at or near the surface, and at other times the greatest concentration is found further down, perhaps at 250 feet, and may be encountered at any time until the basic stratified formations are reached.

The general procedure followed in this field, as well as in other Michigan fields, is to erect a standard steel derrick, set on either a concrete foundation or more generally wood piers, with no cellar beneath the floor. The majority of the wells start drilling by using cable tools, which also are used to drive the first string of pipe through the glacial drift. The tools used in this field are rather light.

The pipe used for the first string is usually ten inches in diameter, weighing about 41 pounds to the foot, fitted with short shouldering collars, which are previously welded to the joints upon which they have been fitted. Some of the local producers and drilling contractors prefer to use 14-inch pipe, weighing from 54 to 57 pounds to the foot, and a variety of shoes are in the field, none of the manufacturers have a preponderance of equipment. The drillers prefer the joints of drive pipe to be short, because of the convenience in handling the drilling tools and bailer while making the hole through the overlying drift.

The drive pipe is set on the surface of the ground, after rigging up is completed, and a drive head is placed on the tools fitted with driving slips. Drilling and driving is alternated, with drilling preferred, which is continued as long as the formation will stand up with any reasonable security from caving. The pipe is driven into the hole, or formation, either ahead of the drill, if the formation reached is heaving sand, or after a part of the hole has been made. Heaving sand is encountered quite frequently, which makes it impossible to drill ahead of the shoe. When this occurs, the pipe is driven into the soil and drift until conditions are relieved, and this sort of formation has been penetrated sufficiently to permit further drilling. This sort of condition encountered in the glacial drift is one of the principal reasons that cause the drillers and contractors to prefer to have the drive pipe prepared in short "pup" points.

Use Mud for Protection

When the well is being drilled with cable tools, a heavy clayey mud is used along with drilling and pipe driving to form a protective wall covering so the formation will stand up more easily without caving or heaving up into the drive pipe. The mud used is obtained locally from well slush pits which have been drilled in other locations or fields, and is hauled to the locations with trucks. Particular care is always exercised for saving this shale mud for this very purpose. The mud is measured out into the hole as it is used, 100-pound nail kegs being employed as containers and which are emptied into the drive pipe as often as the driller thinks it is needed.

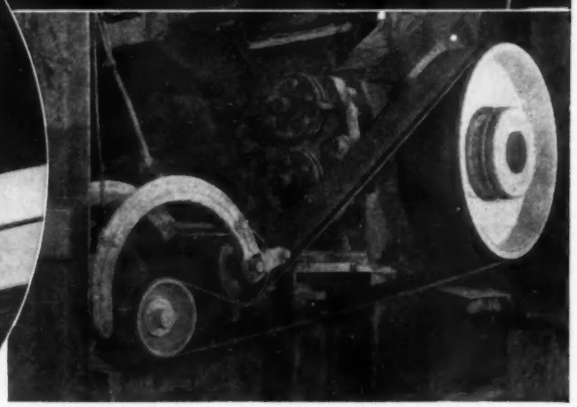
Considerable care is always exercised while driving the pipe through the drift, especially if large boulders are encountered which may cause shoes as well as pipe to collapse. This is especially liable to occur if the drill-

Shell Petroleum Corporation's L. J. Sneed 1-B, SW NW 2-1N-5W. Drilled altogether with cable tools.

ENDLESS HIGHFLEX SAVES TOUGH

Here's the Highflex belt that wasn't pampered —yet saved 50% of belt cost.

Making the Goodrich patented Plylock Splice, the revolutionary method of making a belt endless in a matter of hours, in most cases right in the distributor's shop or even with the belt on the drive if you wish. Plylock makes a joint virtually as strong as the belt itself. Belts made endless by Plylock are setting almost unbelievable performance records.



A crusher drive; photo taken while belt was running. Highflex belts have made many records on drives like this.

ALL *products problems* **IN RUBBER**

Goodrich

50% OF BELT COST ON CALIFORNIA DRIVE...

Reading time 85 seconds

THERE'S at least one spot in California where they don't pamper belts. It's a compressor drive on the desert—temperature 100° to 125°, dry, sand storms frequent, and the drive is a short center, has a 600-lb. idler, high starting torque, and is subject to backfire which flings the belt and throws the idler into the air.

If there were any weakness in belt or joint, such a drive would spot it in a hurry.

Leather belts lasted two years and then began to need constant repair to keep them running. These repairs cost about 10c per belt per day.

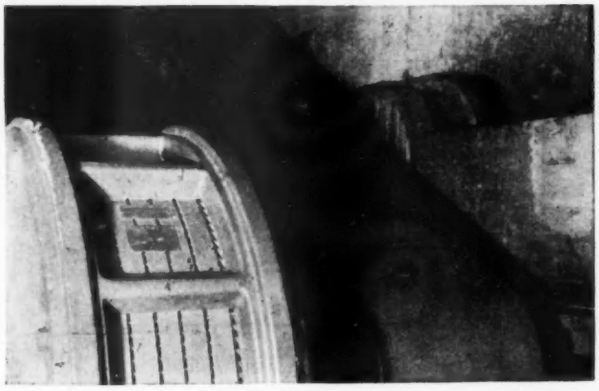
Three years ago the first Goodrich Highflex Belt went on one of this plant's five compressors. They could throw the belt away today and show a 50% saving in belting cost. But the Highflex appears as good as ever. Before it finally wears out, Highflex may show this plant a saving of 80% or more.

Based on their own careful records, this plant has now equipped all five drives with Highflex—the most recent one made endless on the job by the local distributor, using the Plylock Splice which is sure to prolong its life even further.

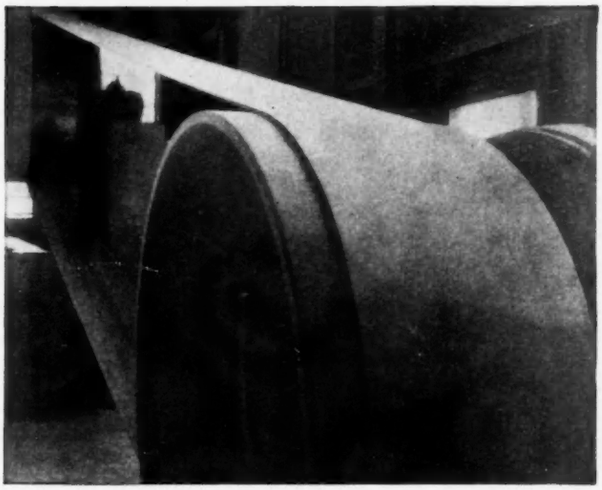
Here is a case, typical of thousands, in which the user has tried almost every make and type of belt and his own records show him the overwhelming economy of Goodrich Highflex Belts. This Highflex economy, which you too can enjoy, is the result of:

1—Straight edge—no longitudinal seams to break down and start bootlegging.
2—Improved fabric specifications.
3—Age-resistance, due to use of special Goodrich compound.
4—Improved rubber compound which increases flexing life three times.
5—Ten other improvements, including the most elaborate product and process control in the rubber industry.

With all these improvements which increase belt life, Goodrich Highflex Belts cost no more. Next time you order belts, call your Goodrich Distributor, and see for yourself how improved modern belting can reduce power transmission cost. The B. F. Goodrich Company, Mechanical Rubber Goods Division, Akron, Ohio.



Endless Highflex, in constant service since 1932 on a tough beater drive in a New England paper mill.



More than four years' service in a dusty atmosphere finds this Endless Highflex in good condition, still driving a Baghouse Suction Fan for a mining company in the northwest. Photo taken while belt was running. Note polished area on upper pulley; it shows how smoothly and evenly this belt has been operating.

Highflex Belting — **PLYLOCK BELT JOINT** — U. S. PATENT NO. 1,995,829

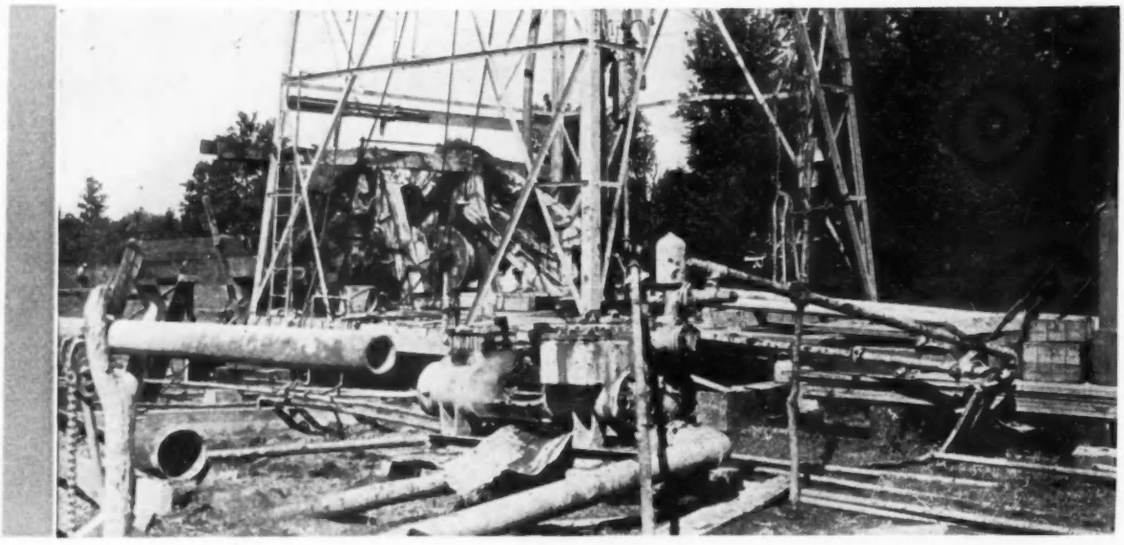
ers are in too big a hurry, and the drive head is permitted to fall with considerable force upon the collars. Several wells have been lost in the Crystal field while driving pipe into the glacial drift because of the over anxiety of the producers and drillers to complete a well in a short time. It is quite disastrous for the contractor to lose a well, especially if the job is a turnkey one, and the pipe is about to be landed at the bottom of the drift. He must, of course, skid the rig and begin another hole from the surface and go through all the work of spudding in a new well.

The drilling of the wells is continued with a spudding line and spudding shoes while in the drift, driving and drilling the well with the same equipment. Pipe may drive quite easily in some wells, while drilling ahead is hampered by the soft heaving gravelly sand. On the other hand, the pipe may drive quite hard, but drilling ahead is comparatively easy because of the stiffness of the formation. Quite often drilling ahead of the drive shoe is being accomplished with a minimum of effort, when suddenly the line will go slack, which means that the bull ropes must be thrown on and the tools lifted a few feet. It is, of course, under these circumstances imperative to bail out the offending sand, if possible, before trying to drill again. Usually when this occurs, the pipe is driven again and an attempt to carry it through the heaving sand is made. In some instances, the addition of another load of drilling clay will stiffen the formation sufficiently to enable the drill to continue through the offending formation before the pipe is driven again. Most of the drillers prefer to open up the hole with the tools to as great a distance as possible before following up with the drive pipe, because in drilling the boulders will either be side tracked or broken up sufficiently to prevent the shoe and pipe from becoming unduly damaged.

The ordinary size of spudding and drilling line is 7/8-inch wire, with a few contractors and producers specifying one-inch wire line instead. After the drift has been penetrated, a manila cracker is almost universally attached to the rope socket, and spliced to the drilling line, which most drillers seem to think provides a better spring to the tools. Some wells are equipped with the older type of all wood bull wheels, while the majority prefer the all steel units. Spudding through the drift, which is as much as 750 feet in thickness in some localities cause a considerable strain to be imposed upon the bull wheels and other equipment around the rig.

Gas engines are used almost to the exclusion of all other prime movers in Crystal Township, first because of the cost of fuel oil when operating boilers, and the hardness of the water, and the time consumed in rigring up the boilers when the soil is wet. Oil burning engines are used in some portions of the Michigan fields, but none are being operated in the Crystal field. Most of the gas engines used in this field are the two-cycle type, single-cylinder, set in the conventional engine room with the telegraph throttle wires leading from the engine to the headache post. The reverse lever is extended so it may also reach a point convenient to the driller or tool dresser while the pipe is being driven and spudding is being accomplished.

All holes must be approximately vertical. If not, the contact between the spudding shoes and the ever present boulders would cause the pipe to slip at an angle and collapse. This overlying formation encountered in the Crystal district is about 380 feet thick on an average, not uniform in thickness, however, but gradually becoming more massive as wells are drilled further north. Some parts of Michigan have the overlying formation running as thick as 750 feet and in some instances it has a total thickness of more than 1000 feet. Full of boulders of every size deposited by the melting ice, the glacial drift causes no end of worry and trouble to the drilling departments of the producing companies in Michigan.



Type of rotary used in drilling complete wells in Crystal Field, Michigan

Driving pipe with cable tools in the Crystal Township field to penetrate the glacial drift usually consumes as much as seven days, which makes about fifty feet completed each twenty-four hours. The standard rig is completed before beginning to spud and drive pipe, but the walking beam is not brought into use until the drive pipe is set firmly into the stratified formation below the overlying drift. The entire depth of the drift is penetrated with spudding equipment, and the temper screw is not attached to the drilling line until normal drilling is ready to be begun in the shales below the glacial drift.

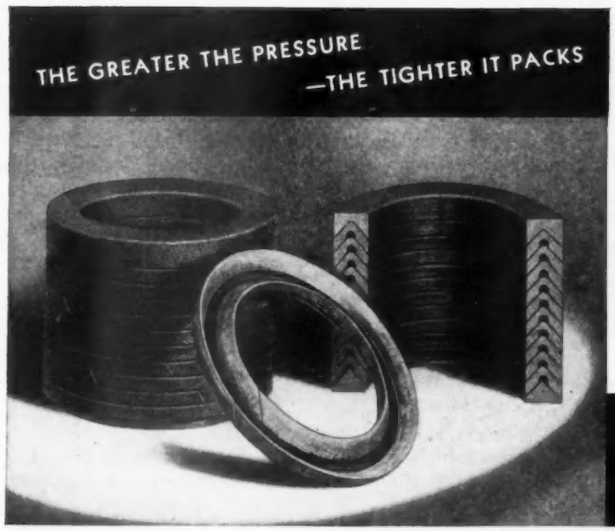
There is only one string of straight rotary tools being used in the Crystal Township field at present. It utilizes boilers fired by both gas and fuel oil. This string

IF IT ISN'T GARLOCK—IT ISN'T CHEVRON

CHEVRON

Reg. U. S. Pat. Off.

RARELY does any "just as good" product give the satisfaction of the genuine. Imitations are always imitations. Even if the original product does cost a little more than the imitation the extra service it gives usually is worth many times the additional cost.



So with Garlock Chevron Packing. This product was developed in the Garlock laboratories after long research and experimenting. It was designed to reduce friction to a minimum, save power losses, pack difficult jobs and last longer than any ordinary packing. Thousands of Chevron users know that it really does all of those things.

Garlock Chevron is truly automatic. The greater the pressure . . . the tighter it packs. Insist upon Garlock Chevron. Always remember that if it isn't Garlock, it isn't Chevron.

THE GARLOCK PACKING COMPANY
Palmyra, New York
In Canada: The Garlock Packing Co. of Canada, Ltd., Montreal, Quebec
Tulsa, Okla. Houston, Texas Los Angeles, Calif.

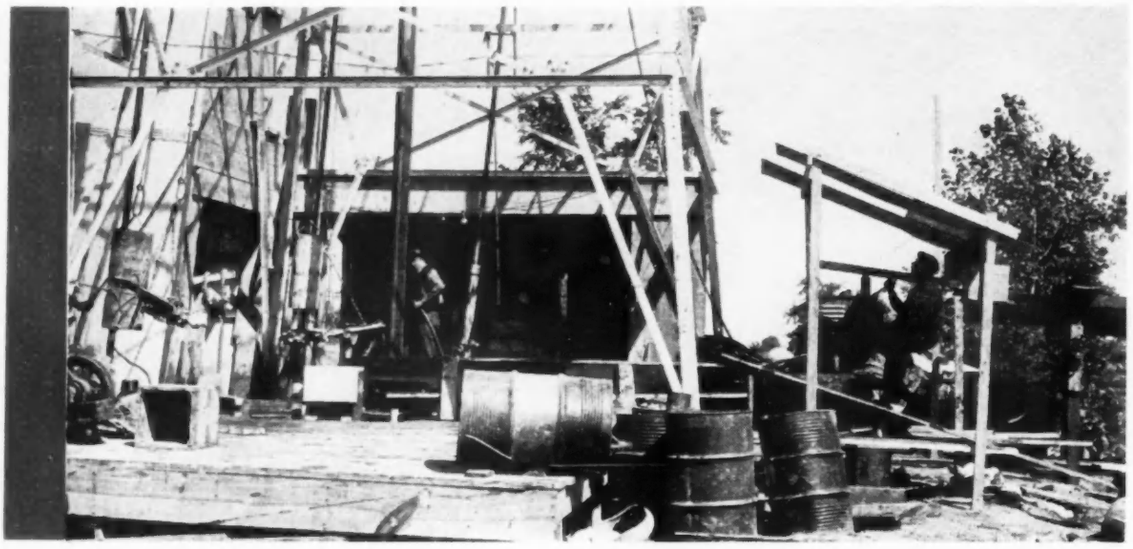
GARLOCK

of rotary tools is of the same general type used while drilling shallower holes in North Texas for many years. Michigan is primarily a standard tool field, the same as Oklahoma and other Mid-Continent areas were before the advent of the rotary rigs.

Rock bits are used when drilling with the larger type of straight rotary tools, and are of the same make and general type as used in fields where rotary tools are common. The time consumed in drilling through the glacial drift is said to cover no more than a few days at most, and when an unusual well is encountered, the whole of the 380 feet may be penetrated in one working day.

A number of rock bits are necessary for a 3200-foot hole due to the peculiarity of the lower formations.

A few small portable rotary strings are used in this field, besides the one straight rotary. These are used only for the penetration of the drift formation. These strings of small rotary tools use the same general type of rotary table as larger tools, but the drive is through a combination drilling rig and draw works powered by a vertical four-cylinder gas engine. The entire rig is skidded to the derrick floor and the driller sits comfortably beside the controls during his working period. The slush pump is operated independently of the drilling tools and draw works, and may be placed at any point near the well and mud sump. One well in particular is situated near the farm drainage ditch, with the four-cylinder gas engine on one side of the stream of water and the mud hog on the other, and are connected by a belt. The water circulating pump picks up the flow from the ditch and drives it through the cooling jackets of both the drilling and mud pump engine, with the waste water flowing back to the ditch. With this particular well, the water lines are extended so that make-up fluid can be prepared by opening and closing a valve that controls the flow of water to the slush pit.



Type of small portable drilling oufit used as a rotary in Crystal field

Loss of Fluid

There are times, when the tools are near the base of the glacial drift, that so-called cavities are encountered and there is grave danger of returns being lost. Some of the drillers and contractors attribute the loss of drilling fluid to underground streams of water, which, when flowing through the porous gravel, carry the mud with the stream, and so dilute the drilling fluid that cuttings cannot float to the top of the hole. When this condition is encountered, special drilling muds are mixed in the sump, having colloidal qualities that assist in bringing the cuttings to the surface and at the same time sealing up the cavities or porous formations. A few strings of tools have been lost in the Crystal field by twistoffs caused by stuck drilling tools.

Others more familiar with rotary drilling attribute the loss of drilling fluid to the fact that most of the drillers in Michigan are not entirely familiar with rotary drilling technique, and either do not use a properly balanced drilling fluid, or place too much weight upon the bit when the porous formation is encountered. However, when the proper precautions have been observed, the hole can be completed without loss of either tools or returns.

When beginning a well, either with the light portable rotary or the complete string, the hole is drilled through the drift before the first string of casing is run. Generally, when no unforseen difficulties are present, the hole stands up rather well, considering the unequal structure of the drift, and the string of ten-inch pipe can be landed on the underlying shales without much difficulty.

The almost complete absence of surface markers prevent geologists and engineers from making an intelligent survey of the field, except when several wells have been drilled and the formations correlated. The trends of folds and structures apparently run in a northwest-southeast direction, which is being borne out in the Crystal field to date. However, even with the number of dry holes completed in the district, the field is yet much too young to predict definitely how large it will be.

The comparatively large initial production from several of the wells makes it interesting enough that many wells are to be staked off in all directions from the center of the productive area as now defined. The crude is of a high gravity, and the products refined from it have a better market value than most other crudes maintain, and the demand for Crystal crude is much more than the transportation companies can now supply.

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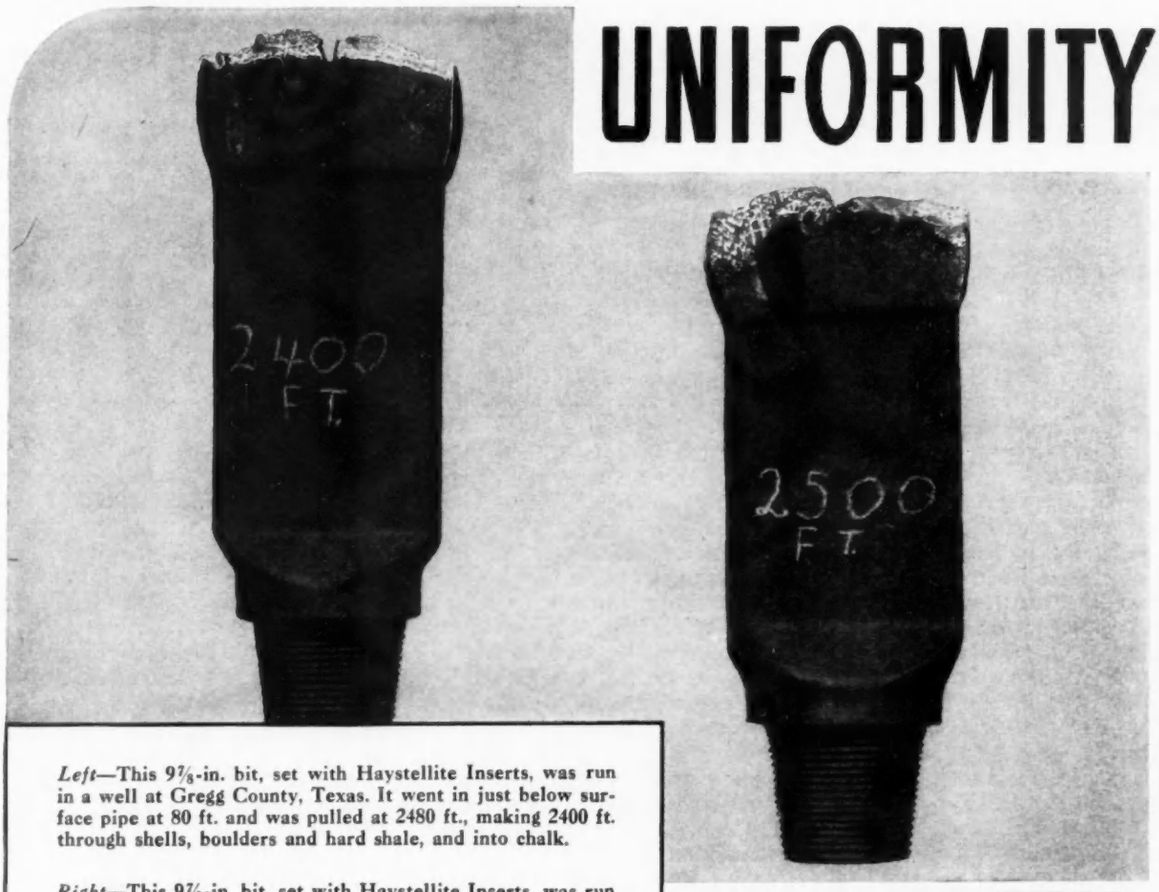

Left—This 9⅞-in. bit, set with Haystellite Inserts, was run in a well at Gregg County, Texas. It went in just below surface pipe at 80 ft. and was pulled at 2480 ft., making 2400 ft. through shells, boulders and hard shale, and into chalk.

Right—This 9⅞-in. bit, set with Haystellite Inserts, was run in an offset well. It went in just below surface pipe at 80 ft. and was pulled at 2580 ft., making 2500 ft. through shells, boulders and hard shale, and into chalk.

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56-S

Unique Line Repair Job

A SHELL IS PLACED OVER SLEEVE THEN CEMENTED AND WELDED IN PLACE

By ELTON STERRETT

UNDER an initial pressure of 900 pounds per square inch at the pump station four miles away, an eight-inch line in East Texas ruptured after being in service only three months.

Due to the demands being made on the line, the quickest possible repair was indicated, and so a three-foot long sleeve was clamped around the 18-inch longitudinal split, and pumping was resumed.

For nearly four years the sleeve and its rubbers withstood the heavy line pressure, though the possibility of failure kept the spot constantly on the mind of the pipeline superintendent as he cast about for ways to make the repair permanent. As the fracture occurred near the bottom of a long rise in the line, it was not simply a matter of pumping sufficient water into the main line to form a blank while a new piece of pipe was welded in. There was the problem of providing temporary storage for oil drained off, and the task of getting it again into the line without shutdown.

Finally, when inspection of the job showed the rubbers were working out from under the collars at both ends of the sleeve, it was decided to put a shell or "cuff" around the break and to enclose the repair permanently.

On a joint of eight-inch pipe in the station yard, a sleeve similar to the one on the main line was clamped into place to serve as a jig or form. Over this was slipped a length of 14-inch O.D. pipe, carefully blocked into place. Then with welding torch, wedges were cut from the ends of the 14-inch pipe, and the remaining metal formed down to fit closely around the eight-inch line, and so welded as to form a double-ended swedge. After reinforcing the bottom against corrosion with a half-sole of the same pipe steel, and welding two risers, formed from three-inch collars, in the upper portion, the "cuff" was split longitudinally with the torch into bottom and top sections.

At the scene of the break these two halves were clamped together again, completely enclosing the original sleeve,

To guard against possible damage to the line pipe, of 0.32 carbon seamless steel, the "cuff" was designed with risers so that it could be run full of cement. By thus filling the voids between "cuff" and repair with grout, the sleeve, bolts and collars were held rigidly in a cement matrix so that, even when the rubbers should finally fail, there would be no possibility of any of the parts working loose to act eventually, under the vibration of the line, as hammers to cause crystallization of the metal and perhaps initiate a second disastrous break.

After the cuff was filled with grout, bull plugs were screwed into the risers and a bead run around their joint by the welder to make a final welded seal on the job. As a final precaution, three straps were welded across the belly seams on each side of the "cuff", and the whole repair given a cold coat.

The entire cost of the "cuff"; material, fabrication and placing, figured to only a fraction of the market value of what oil would have been irretrievably wasted had it been necessary to drain that portion of the line for welding in a joint to replace the sleeve.

FIGURE 1
First stage of fabricating the "cuff" over a joint of eight-inch. Risers were added later.

FIGURE 2
The main line sleeve on the job.

FIGURE 3
"Cuff" enclosing sleeve and welded as integral part of line. Plug is out to permit breathing of grout under heat.

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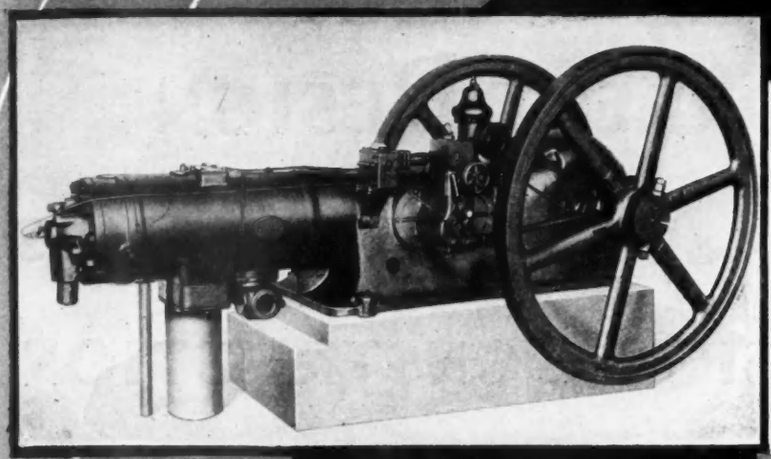

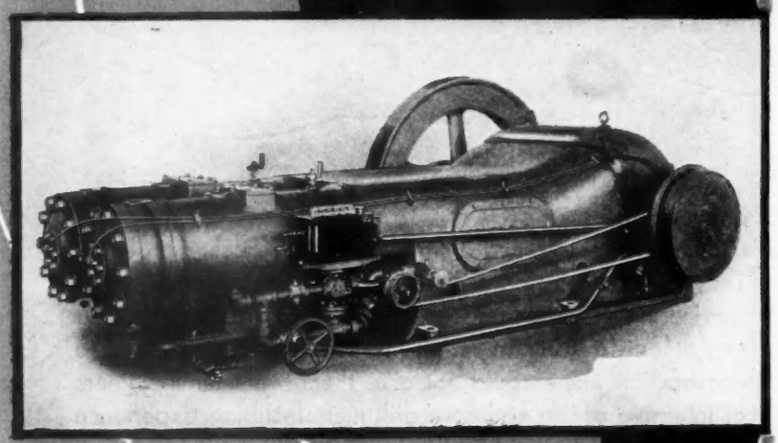

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12 x 15	"	"	40	60
13 x 18	"	"	50	70
14 x 18	"	"	60	85
11 x 15	Twin	"	75	100
12 x 15	"	"	100	120
13 x 18	"	"	140	140
14 x 18	"	"	170	170

OIL

			Oil Field	Commercial
11 x 15	Single	Cylinder	30	45
12 x 15	"	"	40	55
13 x 18	"	"	50	65
14 x 18	"	"	60	75
11 x 15	Twin	"	75	90
12 x 15	"	"	100	110
13 x 18	"	"	130	130
14 x 18	"	"	150	150

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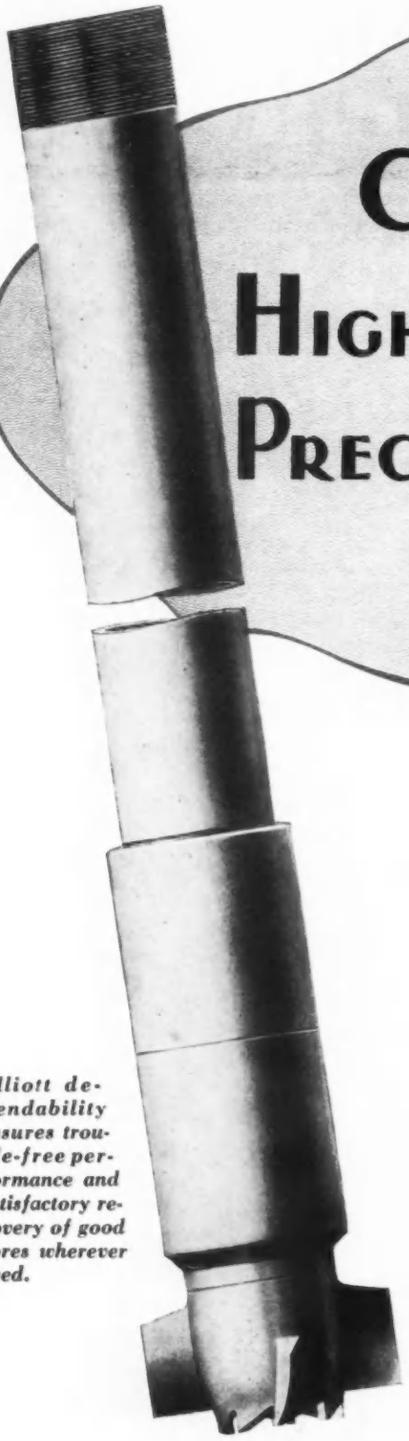

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Development is crowding toward the southeast at Long Beach, due to drilling south of the major fault line.

Long Beach Still Factor

» » GREAT SAND THICKNESS HAS GIVEN FIELD UNUSUALLY LARGE RECOVERY

By BRAD MILLS, Associate Editor

THE Long Beach (Signal Hill) field in many respects has been the greatest oil producing area ever developed. The recent completion of a large number of good producers has focused fresh attention on a field that already has produced more oil than any area of its size in the world. With a comparatively small productive acreage, the field has had a spectacular history since its discovery late in 1921. Very few fields have produced as much oil as Long Beach, and none can approach this California field in oil recovered per acre.

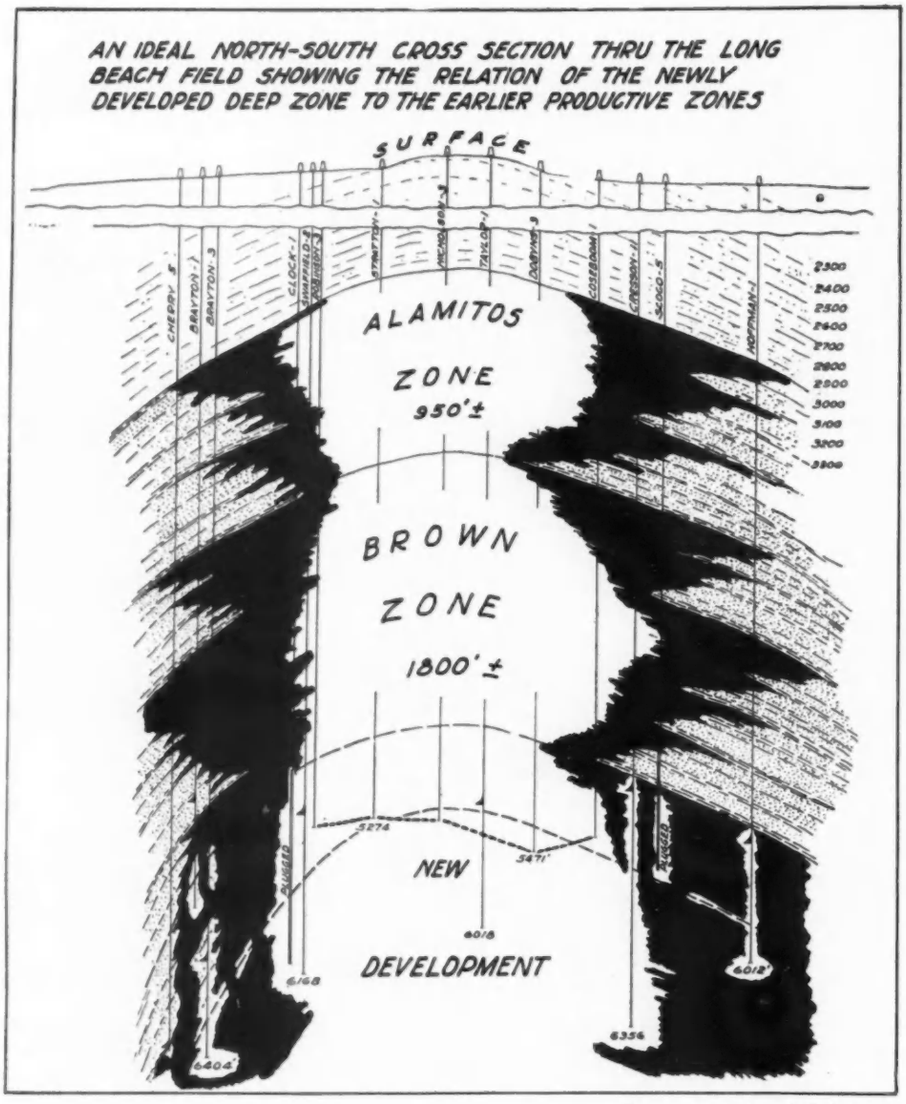
The tremendous thickness of the producing zones places the field in a class by itself. Many fields, particularly the more prolific ones in California, produce from a series of distinct zones or sands, but the Long Beach field is one of very few that did not show intervening water or long breaks between producing zones through the entire thickness of the producing formations on top of the structure. The extremely lower portion of the producing zone is a possible exception, since there is some disagreement concerning the bottom strata.

Although the Long Beach field is commonly referred to as a one-zone producer, such is not the case. At least three major zones are recognized, even though for practical purposes a well might have been completed to produce from all three without trouble from water. Each major zone also is divided into many thinner strata, the combined alternating layers of sand and shale forming a thick lamination.

The importance of the field as an oil reserve has been underestimated since its discovery. First estimates placed the total recoverable oil at a figure far less than the field was able to produce during the next few years. As average completion depths became greater and additional data were gathered, reserve estimates were revised and the field placed ahead of the list of Los Angeles basin producers. The consistent rate of production, when compared with that of the average field, gives the area an unquestioned leadership in California.

400,000 Barrels Per Acre

The Long Beach field has already produced more than 20 times as much oil per acre as the East Texas



—Courtesy Jensen and Robertson.

field is expected ultimately to yield per acre. With a producing area of only 1300 acres, the California field has yielded about 532,000,000 barrels of oil. This total gives the remarkable recovery of more than 400,000 barrels per acre from a field that remained undiscovered during the development of less important areas, despite marked surface evidences of an accumulation.

Some idea of the volume of the oil recovered may be gained by giving thought to the fact that the field has yielded enough crude oil to fill a tank the size of the field to a depth of 53 feet. This would be a greater lake of oil than the total sand thickness of many Mid-Continent fields. The area of the Long Beach field is about 57,000,000 acre-feet, or square feet. Production has been about 3,000,000,000 square feet of crude oil.

It is unfair to the best inside leases to hold them to a production of a net depth of only 53 feet of oil, if all crude had been tanked and held. Average production of the most prolific acreage has been more than twice that of the field average. This means that a tank the size of these leases would have been filled to a depth of more than 100 feet by the accumulated yield. Production of the Long Beach field by years, and for the first four months of 1935, is shown in Table I.

Few fields have been more intensely developed than Long Beach. About 1400 wells have been completed as commercial producers, but less than 1300 are now capable of producing oil in paying quantities. With almost one well per acre, the field is still able to produce more oil than many newer and larger fields. The average depth of all wells completed is above 5400 feet. About 1350 miles of hole, or more than 7,150,000 feet, have been drilled in this small field. The total would not be impressive in very large fields, but more than a mile of hole per acre is a very high average in any field.

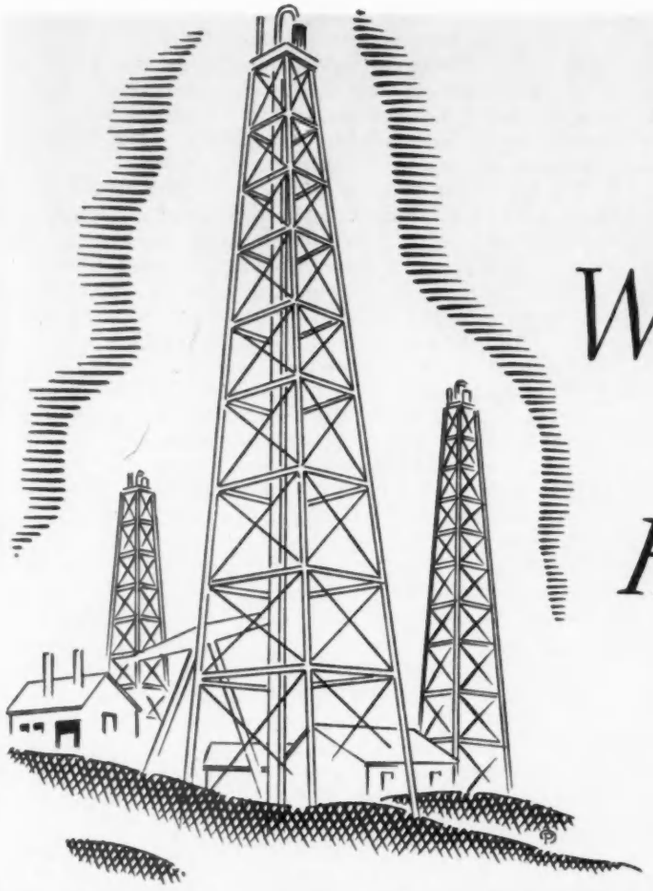
Long Beach has a rated potential of more than

TABLE 1

Long Beach Production By Years

YEAR	Barrels
1921	75,588
1922	18,560,595
1923	68,810,361
1924	60,122,002
1925	40,173,375
1926	37,931,964
1927	34,541,667
1928	62,467,103
1929	60,495,555
1930	36,599,688
1931	30,166,409
1932	27,435,553
1933	24,798,242
1934	23,101,099
1935	*7,550,000
TOTAL	532,829,201

*Estimated.



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115,000 barrels daily, but there is some doubt as to its ability to produce such a total. Daily production has been running above 70,000 barrels at intervals during 1935. The field led all California areas during 1934 in production, but Kettleman Hills had a much higher potential and could have led the state with ease.

The Long Beach field is typically a townlot area. Located near the city of Long Beach, and favored with a number of advantages not enjoyed by other fields, the area has been developed with all the fervor attending intense overproduction. Its location near tidewater, refineries, all forms of transportation, and the center of a large center of consumption has been significant.

The discovery well was completed in June, 1921, by Shell Oil Company. Initial production was 500 barrels of 22 gravity oil from 3115 feet. Surface indications gave strong evidence of an accumulation, but interest in development waned until the discovery of the Huntington Beach field in 1920. Completion of the discovery well led to one of the most intensive leasing and drilling campaigns ever witnessed in California. All types of operators entered the field, but at least two major operators failed to get excited in time to acquire good acreage.

The field was not fully appreciated during the early stages of development. After reaching a peak of almost 69,000,000 barrels in 1923, the field managed to produce more than 60,000,000 barrels during 1924. A number of comparatively late entries into the field have been among the most successful operators.

The Alamitos, Brown and Deep zones have been the principal producing formations at Long Beach. The Alamitos is generally considered the shallowest producing sand, but some oil has been produced from the Wilbur zone above the Alamitos. Nearly all production prior to 1928 was from the Alamitos and Brown zones.

The Alamitos zone extends from about 2500 feet to 3400 feet. All the first production came from this sand, which is composed of sands, sandy shales and shales. The oil was heavy, ranging from 17 to 26 gravity. Initial production of Alamitos zone wells varied from 800 to 3800 barrels daily.

The main Brown zone extends from 3400 to 5200 feet, but for more practical purposes has been divided into two sections. It is classified as the Upper and Lower Brown sands, the two sections being separated by a shale body in some parts of the field, but blending as one in other parts of the field.

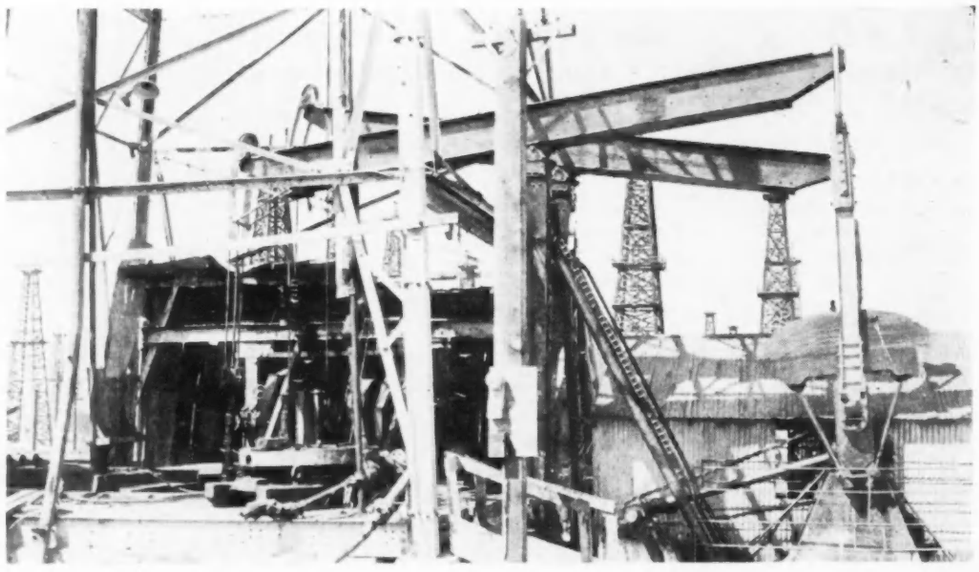
On and near the top of the structure, the Brown and Alamitos zones have a combined thickness of about 2750 feet. Since there was no intervening water during early development, a record thickness of near-continuous oil bearing formation was opened. On the flanks of the structure edge water caused some trouble, and it would not have been practical to complete a well flowing from the full thickness of the two formations. The base of the Brown zone on one side of the field gave trouble, while edge water near the base of the Alamitos zone was not unusual on flank leases.

The first deep zone was found at about 5200 feet, and extended to 6400 feet. The presence of this zone was known by several operators more than a year ahead of its primary development. A few wells that passed through water at the base of the Brown zone continued and were completed as large producers below 5200 feet. A few of these wells quietly produced a large amount of oil before offsetting operators realized that a new and deeper zone had been found.

The second deep zone was found at about 6400 feet, and extends to varying depths, depending upon location and the disposition of the operator to accept certain markers. Some production has been developed below 8000 feet, but the extremely lower portion of the deeper zone has not produced uniformly. Top of the second deep zone was the first definite accepted marker in the field.

One of the most significant features of the deep zone development was the fact that the new production came principally from the Miocene formation. An early belief gave this formation a very limited chance to produce in the Los Angeles basin.

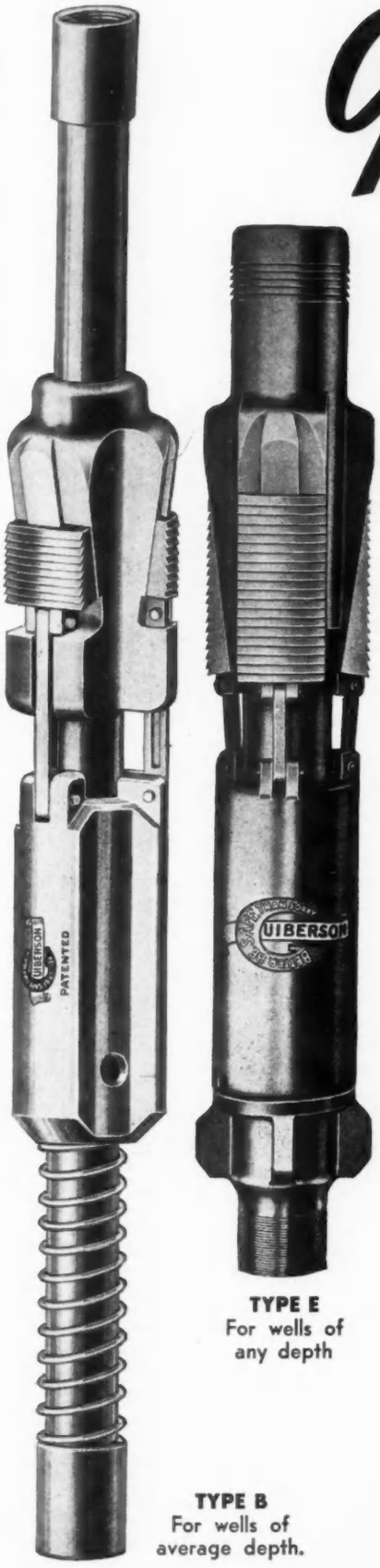
The field is structurally an elongated anticlinal dome. Signal Hill, a famous marker, stands out in sharp contrast to the flatter areas all around the field. The structure is one of nine in a direct line between Newport Beach and Beverly Hills. It lies



These wells, located only five feet apart, are producing from different levels in one zone.

Greatly Enlarged

SLIP AREA



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along a horizontal fault plane that has yielded a large percentage of the total oil produced in the Los Angeles basin.

Three years ago a number of operators found that by plugging back or deepening to the 4800-5200-foot level they could obtain good producers. During the rush to develop the deeper zones, prolific streaks of oil sand either were passed up intentionally or ignored. The desire to complete wells with large initial yields caused operators to miss the strata that later proved good for fair pumping and flowing wells. During 1932 and 1933 a large number of wells were completed to produce around the 5000-foot level.

It is very interesting to note that all wells completed at Long Beach during the first three months of 1935 were finished between 3400 and 5200 feet, with the exception of two or three wells that produced high percentages of water. Operators are making no effort to develop the deeper production. A few flowing wells have been completed recently above 5000 feet.

Development during the past few years of the section lying south of the major fault line has been important. This part of the field is now active, and the producing limit has been extended farther into and toward the city of Long Beach. The field is still active and now has about 50 drilling operations.

Water caused no trouble during early development, except on edge leases. Water is encroaching rapidly, and has fingered into all producing formations to a damaging degree. Questionable supervision of cementing operations during the original drilling rush took a heavy toll in damages to producing wells.

The Long Beach field now is producing more water than oil, it being necessary to lift about 105 barrels of water to obtain 100 barrels of oil. The water percentage is showing a steady gain. Many wells could not be produced profitably, should lower crude oil prices prevail. Even at present oil prices, many wells are not returning a fair yield on invested capital.

Most of the producing wells are on the pump, but several good flowing wells are not uncommon. Wells completed in little-developed portions of prolific sand streaks often flow from one to two years before going on the pump. The field never was famous for large flowing wells, but the gradual decline was conspicuous.

Drilling has been carried out under all kinds of conditions and handicaps. The field has from the beginning been associated with imaginary tales of wealth that never existed. Many leases have returned tremendous profits to the owners, but perhaps a greater number have little more than returned their cost.

A number of pairs of wells have been drilled a few feet apart as a means of reducing completion costs. Two wells were recently completed five feet apart and are producing from different zones. The same equipment and derrick were used, and one small gasoline engine furnishes power for pumping both wells.

Electrical logging methods have done much to locate water sands, streaks of oil zones, and impervious shales that were not logged during drilling operations. Many wells are being plugged back to produce from streaks of oil sand that were regarded as questionable strata at the time of original drilling.

The handling and disposal of waste water from the Long Beach field have established a new standard for this phase of development work. Oil Operators, Incorporated, was organized in 1926 as a non-profit corporation to handle, treat and dispose of waste water from the field. Membership was and is confined to operators in the field who pay for memberships on the basis of the number of wells, topping plants, or refineries operated. The original membership was $100 per well.

The waste water disposal system has been self-supporting since its inception. The field is located in a congested area, near bathing beaches and industrial plants. Release of oil could not be tolerated under any circumstances.

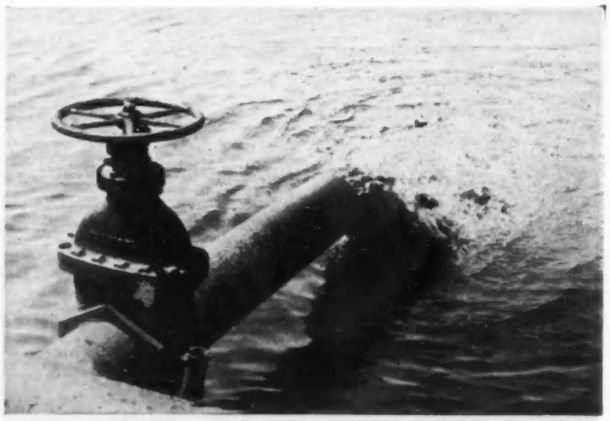
The disposal system is now handling from 65,000 to 75,000 barrels of waste water daily. The oil recovery from this quantity of waste ranges from 200 to 225 barrels daily. The system has been in operation for eight years, and during that period about 900,000 barrels of marketable oil has been recovered from the 240,000,000 barrels of waste water handled and treated.

The oil is recovered by skimming from a long series of earthen pits that are excavated to depths ranging from 25 to 40 feet. A large treating plant is operated six months per year for cleaning the oil recovered. During the remaining six months the oil is recovered and stored in pits. The oil is sold at considerably less than the posted price for Long Beach crude, but commands a fair price as road oil, fuel oil, etc.

Oil Operators, Incorporated, owns and operates more than 13½ miles of pipe line in and near the Long Beach field. The line consists of five-, six-, eight- 10- and 12-inch pipe. The corporation owns more than 42 acres of land near the field, and has used most of this acreage for pits.

The discovery several years ago of iodine in water from Long Beach wells resulted in the erection of a plant for the extraction of iodine. The three plants operating in and near the field have a combined capacity of 1000 pounds daily.

Due to the tremendous thickness of the producing zones and the recent application of more scientific methods for locating streaks of oil and water zones, the field will remain an important factor for many years.



Waste water from the Long Beach field flows to a central disposal system at the rate of 70,000 barrels daily

THE USE OF EXPLOSIVES IN PROSPECTING FOR OIL

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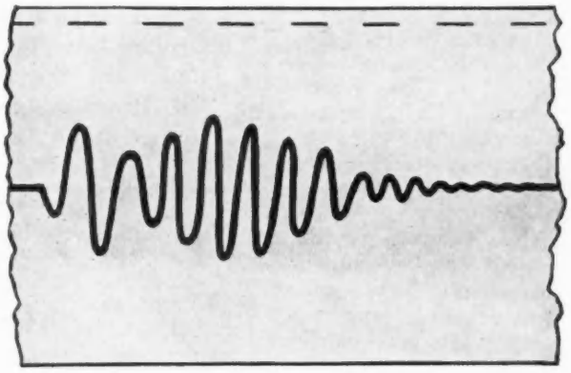

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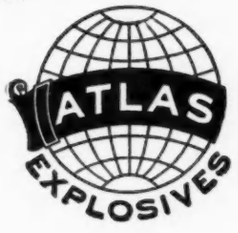

Australia Geology

FACTORS IN OIL PROSPECTING

By D. DALE CONDIT

Published through courtesy of the Managing Director of Oil Search Limited, Sydney, and abstracted from the Australian Geographer, May, 1935, where it appeared under the title of "Geological Factors in Oil Prospecting with Reference to Australia."

OF the total area of nearly three million square miles in Australia, the regions possessing sufficient attraction to warrant field investigation probably do not exceed a few hundred thousand square miles. In the territory thus to be considered will be included parts of the Kamilaroi (Permo-Carboniferous) basins of New South Wales, Queensland and Western Australia, parts of the interior Mesozoic basin of Queensland, possibly parts of certain coastal areas of Cretaceous and Tertiary rocks, including the Eucla basin. The procedure in evaluation, up to this stage, is one of elimination. Further sifting out of possibilities requires critical investigations based on field studies.

Some ten years ago Dr. Arthur Wade undertook investigations for the Commonwealth Government, leading to trips through Queensland, New South Wales, Western Australia, and other regions, and the publication of several reports.[1] Ten years earlier he had carried out similar investigations in Papua and South Australia.[2]

In Queensland the localities examined by Wade include the Longreach district, where a type of petroleum wax is obtained from some artesian wells, and the Roma district, where the encountering of large volumes of petroliferous gas in deep drilling for water many years ago had led to the sinking of numerous exploratory bores over a radius of 35 miles from the discovery well. Apparently Wade regards as fair, the prospects for success in certain parts of the state, provided suitable structure can be located.

Structures Found

In regard to New South Wales, he designated the Sydney Basin as the best field for exploration, and favored the Hunter River Valley, where he found attractive structures, as well as a fairly satisfactory carbon-ratio in the coals. Testing with the drill was recommended with a view to verifying the possibilities of the Lower and Upper Marine beds, and he considered prospects good for gas. The more southerly portions of the basin were, however, regarded unfavorably because of the more advanced carbonization of the coals, the ratio between fixed carbon and volatiles there being mostly above 65.

In the examination by Wade in Western Australia and the Northern Territory, the Permo-Carboniferous outcrops of the Fitzroy River and the Cambrian outcrops of Ord River received principal attention. He reported some evidence of petroleum encountered in massive sandstones in the Mt. Wynne Bore, occurring as scattered patches and fillings of tiny cracks, and stated also that oil is disseminated rather widely in Lower Carboniferous limestones in the vicinity of a fault near Price's Creek. He concluded that the oil originated somewhere below the Carboniferous series, in substrata probably Cambrian, and surmised that large oil supplies, if formerly present, may have been dissipated and that only residues remain. The shows of oil observed at two localities in the Ord River area consist of viscous to rigid bitumen in a vesicular basalt near its contact with an overlying limestone of Upper Cambrian age, and the conclusion is that prospects for important accumulations are poor.

Western Australia

Mention should be made of the investigations of F. G. Clapp in Western Australia in 1924 on the behalf of holders of large petroleum concessions. His travels were extended into the principal areas of Palaeozoic rocks, including the Desert Basin and Northwest Basin. His observations are set forth in several papers,[3] in which he takes the firm stand that prospects for commercial accumulations are poor.

In 1924, while others were conducting field investigations, E. C. Andrews published an analysis of petroleum possibilities in Australia.[4] His conclusions were far from encouraging. Again in 1932, he wrote on the oil problem,[5] reaffirming his earlier views.

W. G. Woolnough, Geological Adviser to the Commonwealth Government, carried out an aeroplane reconnaissance, encircling the continent with a view to demonstrating the value of that method as an adjunct to geological investigation. As an outcome of his efforts have come several reports and short papers.[6] He has maintained a moderately optimistic attitude throughout as to petroleum possibilities in certain regions, including parts of Queensland and Western Australia. In 1931, he states: "The search for oil in Australia can scarcely be said to have begun yet."

A feature of significance among the geological factors bearing on the problem in Australia is the comparative stability of the continental mass since

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pre-Cambrian time, even the pre-Cambrian sediments dipping gently with very few exceptions, this being notably true in the west. Eastern Australia became relatively stable during the Palaeozoic, the compressive forces being chiefly in evidence in the eastern marginal portion. This portion, 100 to 300 miles in width, has been free from strong compressive deformation since the Palaeozoic.

The comparatively uneventful history in regard to diastrophism over much of Australia is further illustrated by the fact that, throughout the western two-thirds, no igneous intrusion of consequence has taken place since pre-Cambrian time. The situation in the east, however, is very different, granitic masses of Upper Devonian age being widely distributed over all but the northeast part of New South Wales and numerous Permian, as well as occasional Triassic, occurrences being distributed from the Tamworth district northward to northern Queensland and at intervals inland for 150 miles from the coast. Vulcanism was prevalent at various stages in the east, particularly during the Devonian, Lower Carboniferous, Permian and Jurassic, and again in late Tertiary time.

Marine Sediments

A question of moment is the extent to which Australia is provided with thick basins of Palaeozoic and Mesozoic marine sediments, these necessarily being the places to look for important accumulations, since the Tertiary sediments occur only as narrow fringes along and near the coast and as thin veneers probably of little importance for oil. The answer is that there are Palaeozoic basins with thick marine sediments both in the east and west.

In Western Australia, the Desert Basin, with an area of approximately 150,000 square miles, is composed largely of Permo-Carboniferous strata, with thicknesses of around 10,000 feet, according to Clapp.[3] He found the basal 1000 feet to consist of impure goniatite and coral limestones interbedded with sandstones, and the higher part of the section to consist largely of flaggy to massive sandstones, in part fossiliferous. Owing to the great predominance of sandstone, the scarcity of shales necessary for cover, the minute nature of oil indications in the several wells drilled, the apparent absence of gas, and other reasons, he considered the prospects poor for commercial occurrences of oil in this basin.

The Northwest Basin, 36,000 square miles area, also was investigated by Clapp[3] and considered unfavorable because of reasons similar to those given for the Desert Basin. Recent investigations in this basin throw a very different light on the problem and, in large part, refute the findings of Clapp.* According to revised figures, thicknesses range up to 7000 feet, the strata consisting largely of shales, sandy to calcareous fossiliferous shales and shaly limestones, with substantial thicknesses of sandstone, and a prevalence of marine glacial boulder beds in the lower portion. The slight induration of the strata as well as the low degree of carbonization of the coals in neighboring areas is significant. It is of interest that analyses of coals from the Irwin River district somewhat farther south show a high moisture content and carbon-ratios ranging from 50 to 62.

Cambrian areas, such as the one on Ord River along the Western Australia-Northern Territory border, warrant mention, since thicknesses of several thousands of feet of gently dipping strata include substantial amounts of richly fossiliferous beds, and in view of the fact that these strata have shows of bitumen.

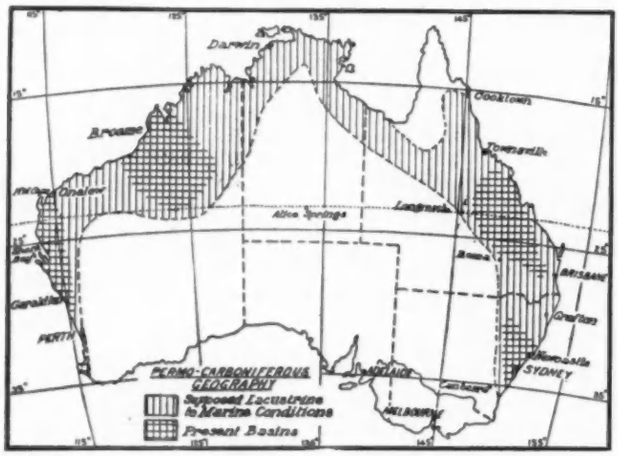
In the east, attention is divided between the extensive artesian basin of Mesozoic rocks in central Queensland and certain Permo-Carboniferous areas in east-central Queensland and New South Wales. The Permo-Carboniferous strata of Queensland and New South Wales resemble those of Western Australia in being composed of substantial thicknesses of marine formations alternating with the Coal-Measures and with marine glacial beds.

According to J. H. Reid,[7] the section in the Springsure district, east-central Queensland, consists, in ascending order, of (a) the Lower Bowen, continually alternating marine, estuarine, and freshwater sediments composed of gypseous shales, sandy shales, calcareous shales and sandstones; (b) the Middle Bowen Coal-Measures, overlain by marine calcareous shale and sandstone beds and glacial marine beds; and (c) the Upper Bowen Coal-Measures, with shales, sandy shales and sandstone. He finds the thickness of strata as above summarized to exceed 11,000 feet. The System is underlain by thick sandstone—the Star series—possibly of Lower Carboniferous age, and is overlapped disconformably adjacent to the Springsure uplift by Triassic sandstones, of the Bundamba formation, according to Reid.

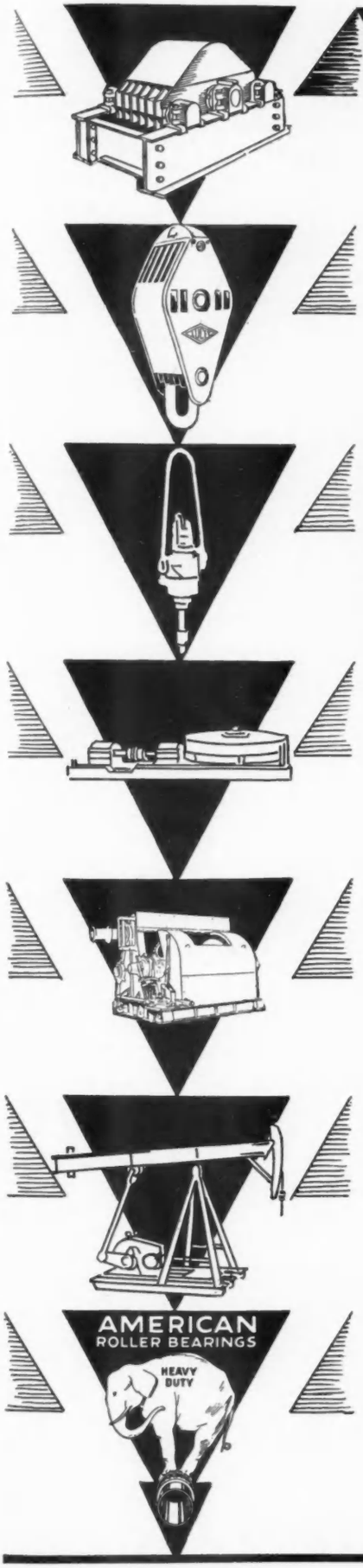
Main Coal Basin

The section in the Main Coal Basin of New South Wales is even more impressive. This area, according to E. C. Andrews,[8] is about 16,000 square miles, and the thickness of the Coal-Measures series, together with interbedded Lower and Upper Marine formations, in maximum development in the Northern

*Recent studies by Condit, Raggatt, Rudd, and others in this District to be published shortly.



Map showing supposed extent of lacustrine to marine conditions during Permo-Carboniferous time.



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Coalfield, is placed at 17,800 feet. The overlying Triassic strata, 1500 to more than 3000 feet thick, rest in unconformable contact just as in Queensland.

In both Queensland and New South Wales, an intermittent but progressive downward bowing in the basins of deposition is evidenced by basinward thickening and overlapping of formational units. The history of orogeny was not solely of this type, however. About midway in the Hunter River Valley lies a pronounced structural uplift, the Lochinvar Dome, the development of which was initiated long before the close of Kamilaroi time and possibly across which some of the higher formations never extended. Professor Sir Edgeworth David,[9] under the heading "Middle to Late Palaeozoic Tectonics," states:

At the close of Upper Marine time in New South Wales there was a considerable doming of the Middle Permian strata in the Lochinvar area near Maitland, the dome being considerably denuded before the Upper Coal-Measures were deposited.

H. G. Raggatt remarks that it is doubtful whether much of the Upper Coal-Measures was deposited across this uplift and whether the section of Upper Coal-Measures beds on the west side is susceptible to correlation with that on the east. During part, at least, of Upper Coal-Measures time, this area of uplift probably was subjected to erosion contemporaneous with deposition in adjacent areas.

Major Tectonic Trends

In like manner it is probable that major tectonic trends such as the Springsure (Serocold) anticline in Queensland came into being long before the close of the Palaeozoic. Regardless of this, however, very perfect erosional planation to a floor-like surface took place over large areas in Queensland and New South Wales on which the remarkably uniform basal Triassic beds were laid down. Recent field investigations do not entirely support the view of W. H. Bryan to the effect that there was no folding of any importance in Queensland at the close of the Palaeozoic era.[10] Some time after the close of the Mesozoic, those strata also underwent structural deformation, so gentle as to be barely perceptible in areas some hundreds of miles inland, and progressively more accentuated eastward, this applying particularly in eastern Queensland, but less so to the more southerly areas in New South Wales, including the Main Coal Province, where dips as steep as 20 degrees are exceptional and dips averaging less than four degrees usual over thousands of square miles. Structural mapping in both Queensland and New South Wales reveals that axes of uplift in the Mesozoic outcrop are commonly superimposed on pre-existing axes. The latest structural warping took place near the close of the Tertiary. Raggatt[11] comments on the importance of Tertiary folding as compared with that of late Palaeozoic in the Hunter River Valley. As regards the Sydney district, W. R. Browne[12] states that the bulk of later eruptions of basic lavas and also dyke intrusions probably took place in early Pliocene time. The comparative recency of important structural warping and faulting such as that along the Nepean front is obvious.

Andrews, in his paper "Prospecting for Petroleum in Australia," rightly concludes that attention must centre chiefly in the Palaeozoic and Mesozoic sedi-

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mentary basins. His choice of Peninsular India as an example comparable with Australia is not, however, appropriate unless he inclines to the view that the prospects in Australia are similarly hopeless.

The statistical figures submitted by Andrews as to number of wells drilled, the aggregate footage and the money expended therein in the several Australian states in the search for oil, are impressive, and in view of the results, may be taken by many people as discouraging further effort. Such data might, however, appropriately be accompanied by an analysis as to how many were based on the divining rod, on a "hunch" or other methods. Certainly, very few would have been drilled if the effort had been made only after competent geological advice. Numerous as the various activities have been, it is obvious that the chances of any success whatever were slender in the extreme in view of the fact that such a large proportion of them were not situated within even many miles of geologically promising areas.

If the various factors touched on in preceding pages serve no other purpose, they will at least emphasize the complexity of the problem in a country such as Australia where comparatively little intensive petroleum investigation has been carried out, and where immense areas possibly of value are, as yet, barely explored geologically.

If there be any criticism of efforts in the past, it is that, in such large part, they have lacked sound geological guidance. For instance, the accidental oil and gas discoveries in Queensland, though of great significance, may be said to have been unfortunate in some respects through having set up a clamour for quick results and the consequent intensive drilling activity. The bore locations could be little better than random shots, considering the featureless character of the country in which, as shown by subsequent experience, reliable structural results are obtainable only by the tedious and expensive process of scout boring. Even today, after the lapse of ten years since the major activity at Roma, the great need is a regional geological picture based on evidence obtained farther afield in areas which, though not remote, are practically virgin territory so far as concerns geological mapping.

When the regional mapping in Queensland, required for a perspective view, has been accomplished, it is possible that the evidence may point to more basinward areas (referring to the late Palaeozoic basin), as the more promising scene for search; and may reveal that previous efforts have been misplaced through being centered on the marginal zone where the Permian beds feather out, and where any oil and gas still retained consist of minor amounts trapped by the overlying Mesozoic beds.

The various geological factors as applied to the Sydney Basin of New South Wales point to a moderately hopeful attitude regarding certain more favorable portions. Doubt has been expressed by some because of the degree of carbonization of the coals. In view of the considerations on the interpretation of carbon-ratio data discussed on a preceding page, it is believed that, in regard to the degree of carbonization over much of the basin, it has not progressed so far as to preclude occurrences of both oil and gas. It is believed that if commercial accumulations exist, they will be in certain more basinward positions, for there alone is the combination of geological conditions, necessary for preservation, likely to be found. The several nicely rounded structures in the Hunter River Valley, however, are not regarded as promising, because of lacking certain essential requisites for the retention and preservation of petroleum accumulations which formerly may have been present. Among various unfavorable factors are: (a) the Lower Marine beds appear to be less promising as sources of oil in the western part of the area; (b) the folds are more compressed and with steeper dips than usual in Palaeozoic fields; (c) the amount of impervious shale cover necessary for rentention appears to be insufficient; (d) the objective horizons in the several structures are exposed in closely adjacent areas with an according risk of dissipation of any oil and gas, formerly present, through active groundwater movement; (e) drilling operations on the Belford and Loder domes bear out these views through having penetrated the uppermost Lower Marine beds without encountering encouraging results.

Possibilities in Tertiary strata of coastal areas cannot be completely disregarded in view of the oil encountered in Gippsland. This oil, lying in basal Oligocene beds along the Basement contact, is an illustration of occurrence along a disconformable contact where little or no structural deformation has taken place since deposition. The absence of associated gas, the heavy character of the oil with no higher fractions, and other unfavorable factors such as permeable character of the overlying lignitic silts, throw doubt on the existence of important accumulations in this district.

In closing it seems appropriate to remark that, if it is considered premature to take an optimistic attitude as to petroleum possibilities in Australia, it may be said with equal truth that an attitude of condemnation of all effort is equally premature. The possible reward is sufficient incentive to justify carrying the investigations to a conclusion. Meanwhile, an open mind is called for.

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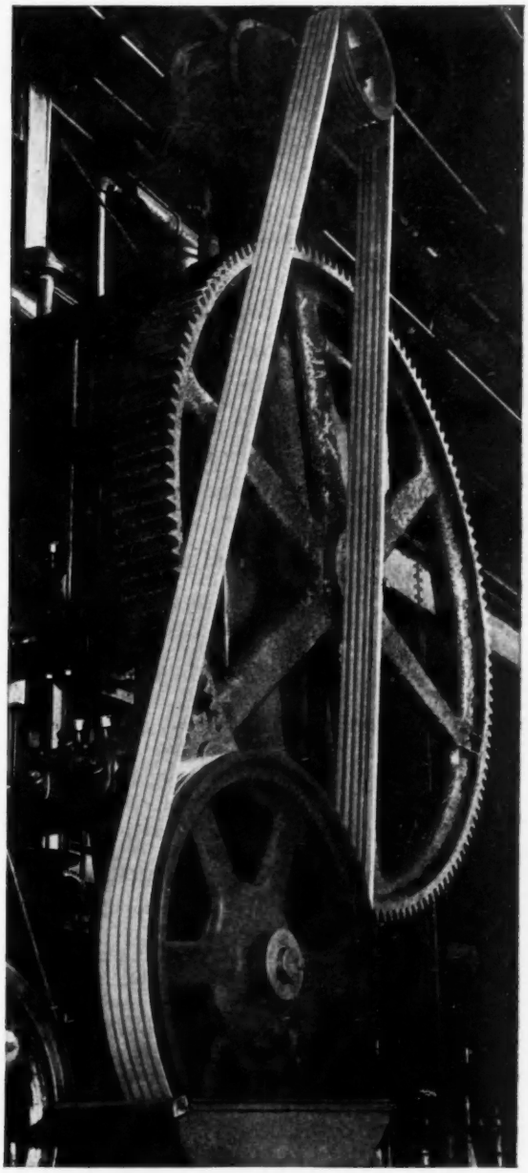

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It will suffice to mention, in this connection, the theoretical and experimental improvement of: (1) Wenner's methods (electrical soundings), improvements on which one must still persevere; (2) Max Mueller's experiments (electro-chemical soundings) which are still being discussed; and (3) L. Bogojavlensky's radiometric prospecting.

Finally: (4) F. Linke, in a recent paper communicated in September, 1934, to the German Geophysical Society at Pyrmont (with a discussion by Gerlach) a series of data on new geophysical apparatus: Machts, Stehle, Futterknecht, De Vita, etc.

Notice is sometimes taken of these apparatus in technical literature, in articles whose main object is to announce the practical successes that they achieve. It also must be admitted that these articles leave one rather skeptical on account of the manner in which they guarantee practical success with absolute certainty, and because of their lack of scientific illustrations of the apparatus; as also, finally, on account of a certain impression that their reading leaves in consequence of the fact that: notions well established in the physical field are ignored, and stress is laid on phenomena that have been long known and investigated scientifically.

Professor Linke summarizes briefly the principles on which these apparatus are based, i.e., the influence of underground causes on electromagnetic waves (Machts), and the variation of an anodic current by means of the connection of grills to aereals, insisting especially on this second principle (Stehle).

The influence of underground causes on electromagnetic waves is a subject that already has a theoretical and experimental scientific history. Only recently Russian geophysicists (Petrowski) have again attacked this subject with rigorous scientific research, but, it appears, with scant practical success.

The class of apparatus that are based on valves (grills connected with aereals) whose anodic current may vary according to the locality where the measurement is taken, are capable of measuring physical entities on whose nature Stehle and Futterknecht do not pronounce themselves; so that Professor Linke rightly remarks that "at this point the authors do not desire to, or cannot speak."

Anyway one may remark, with Linke, that the variations of the anodic current brought about by the grill may be due to a number of causes of different nature, such as: variation of capacity between earth and grill-aereal, variations in function of superficial irregularities as well as of deep-seated variation of the conductivity of the air, variation of earth-air vertical currents.

The measurement of "penetrating radiation" with Stehle's and other apparatus is also referred to. Here, however, one is entering on ground that has of late been excellently covered by pure geophysicists.

The measurement of the terrestial penetrating radiation (already accomplished by other means by L. Bogojavlensky) and its photographic registration may be readily realized. For instance, by employing circuits with Neon lamps, and by regulating the tension at the plates of the Neon tube by means of a suitable resistance, so that the lamp will emit luminous discharges (which are amplificable) that reveal the effect of the earth's penetrating rays. These discharges are intensified by bringing a source of light near to the Neon tube (photoelectric effect).

The same occurs if a radioactive preparation is brought near to the tube.

The following are types of these discharges: The intensity of the earth's radiation (which has a higher power of penetration than Radium C) undergoes a definite change according to the locality where the measurements are carried out, as it depends upon the degree of concentration of radioactive elements contained in the rocks. It increases over oil pools and gas pools (Ostermeier), in absorbent media, over faults and certain other structures.

As the ground always emits "soft rays" whose effect tends to mask that of the "penetrating rays" (which have a much lower intensity), that apparati employed for studying "Cosmic radiation" are not suitable, on account of the thinness of their walls.

The circuits which have been mentioned must, therefore, be suitably screened.

In view of what has been set forth, it would be worth while to carry out systematic field experiments in a scientific manner with the object of investigating practical possibilities.

Undoubtedly the method appears to be more sensitive than Bogojavlensky's, and might be applied to the detection of useful minerals.

Plug-Back Method

PROVIDES FOR SQUARE SHOULDER TO FORM SECURE SEAT FOR CEMENT BLOCK

By EARL S. POST, Staff Writer

THE elimination of bottom-hole water in producing wells is an important problem. It has been receiving considerable attention in a number of South Texas fields. An improved plug-back cementing method has been employed in several South Texas wells and has proved successful. It has the additional features of being simple and comparatively inexpensive.

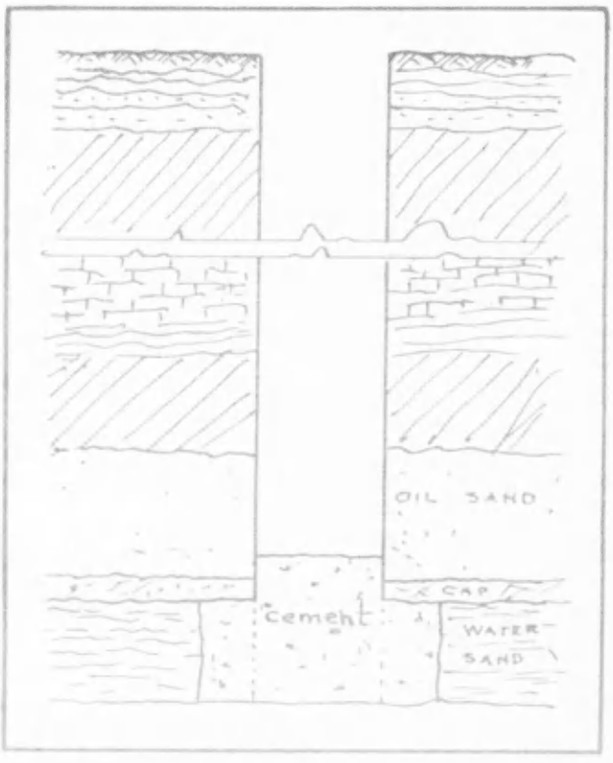
Hole is Underreamed

In South Texas the area producing water generally is a sand or sandy shale section separated from the regular oil horizon by a cap of some sort and of varying thickness. In the plug-back method under discussion, the area between the base of the cap and the bottom of the hole is underreamed to about double the diameter size of the former hole. This underreaming operation is the most important factor in the success of the work. After underreaming, the desired or necessary amount of cement is pumped into the hole and held under pressure in the usual manner. The amount of cement used depends upon the quantity needed to fill the cavity below the sand and to come a short distance up into the oil horizon. The block of cement set in this manner usually cuts off the flow of water permanently.

The probability of encroachment at a future time is reduced to a minimum inasmuch as the square shoulder provided by underreaming makes a secure seat for the cement. By performing the operation in this manner, it is necessary that the cap break away before water could come through into the upper portion of the hole.

Square Shoulder Seat Aids

It is possible if a straight cement plug were set without reaming for a seat that water might break through the space between the plug and the wall of the hole. This would likely occur unless the plug and the wall were perfectly jointed with cement which frequently does not happen when plugging back. And it is well known that it would take only a short time after a leak commenced before the well would be in virtually the same condition as before attempting the plug back. However, this possibility is largely eliminated when the hole is underreamed, as described, so as to obtain a square shoulder for forming a secure seat for cement plug block.



Diagrammatic sketch showing method used in plugging back South Texas wells

Note how the hole has been underreamed to provide square seat for cement block

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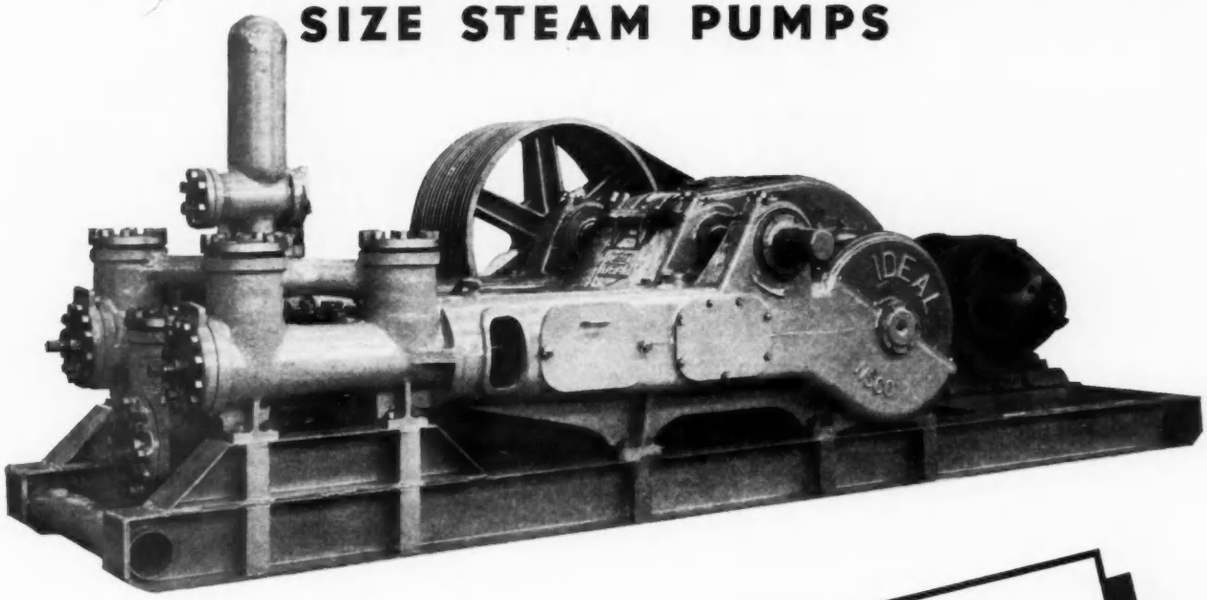

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Bulletin No. 71 sent on request.

THE NATIONAL SUPPLY COMPANY

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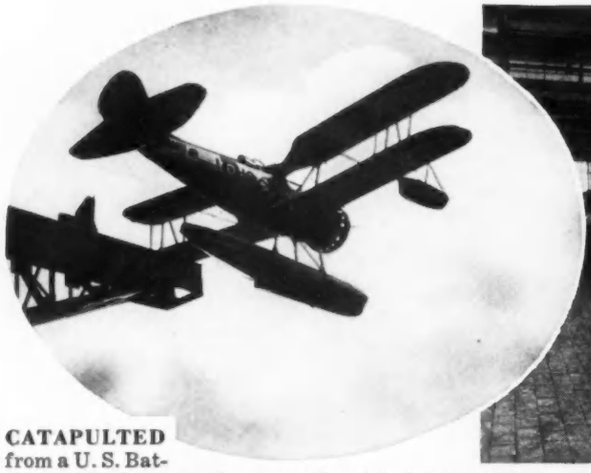
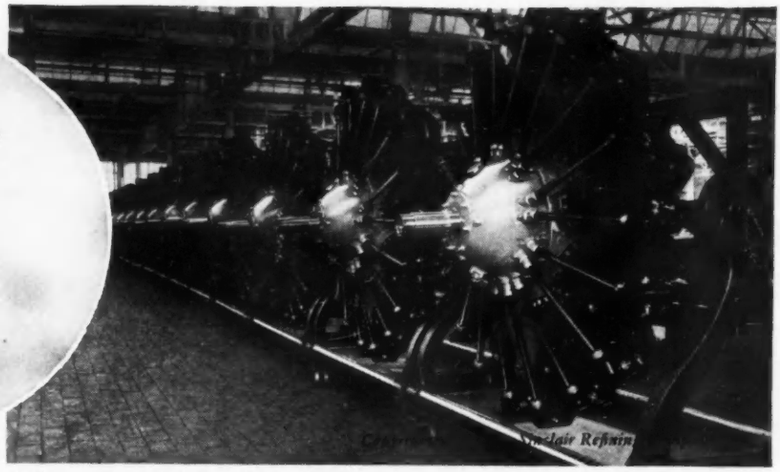
AMERICAN AIRLINES' plane, powered with a Wright Cyclone engine. Planes of American Airlines, Sinclair-lubricated exclusively for the third successive year, serve 57 cities in 20 states and one Canadian province.

RESEARCH by the Sinclair Bureau of Standards in cooperation with engine manufacturers and transport company engineers has developed special lubricants to solve many of the lubricating problems introduced by increased power, speed and size of aircraft engines. Two of the most recent of these Sinclair specialized products are Sinclair Hamilton Propeller Lubricant for variable pitch propellers and Sinclair Rocker Arm Lubricant. Up until a short time ago it was necessary thoroughly to clean out rocker arm boxes after every 15 hours of flying. With Sinclair lubricant, this service is only required after 350 to 385 hours of flying—a remarkable increase in lubrication service efficiency. Sinclair Rocker Arm Lubricant is now used by TWA, Eastern Air Lines and the Wright Aeronautical Corporation.

The skill of Sinclair research engineers is reflected also in the quality of Sinclair Motor Oils, Gasoline and other products—a quality that makes the Sinclair franchise so valuable to dealers, distributors and jobbers. For full details write to Sinclair Refining Company (Inc.), 45 Nassau St., New York City.



CATAPULTED from a U. S. Battleship. U. S. Navy planes are Sinclair-lubricated under terms of the Navy oil contract awarded to Sinclair for the fifth successive year.



PRATT AND WHITNEY aircraft engines assembled for shipment from the company's factory, East Hartford, Conn. Many of these engines in commercial and naval flying are lubricated with Sinclair Aircraft Oils.

Prices Unchanged

MARKETS GENERALLY STEADY WITH OIL USE RUNNING HIGH

THE oil industry's markets last week were generally steady, with prices mostly unchanged from the previous week's levels. For the immediate future, moreover, no material change of conditions and prices appears in prospect.

During the remainder of August the industry will continue to benefit from the heavy summer consumption of gasoline and oils. (Last year, August was the peak month of the year for gasoline consumption).

Meanwhile, supply continues to be restricted to the demand with fair effectiveness, and prices are consequently holding at comparatively favorable levels. Crude prices have remained generally firm at the long-established levels; and refined oil prices, wholesale and retail, are holding at generally satisfactory points. Gasoline prices at Mid-Continent refineries continue at the peak levels of the year, being the most favorable for nearly five years.

In California the market situation continued about unchanged last week. Crude prices still are holding, while refined oil prices remain depressed, wholesale and retail. Crude production in the state increased last week, but it has been long customary for the state to open up some on production at the beginning of each month, and then later to cut down on the output. The California producers have been restricting production voluntarily with fair success since the beginning of June, when the oil code went out.

An exception to the generally unchanged status of prices was offered in the further improvement of kerosene quotations at Mid-Continent refineries. While the kerosene tank car price remained unchanged in East Texas at 3⅛ cents per gallon, the price was up one-eighth cent in North Texas, at 3¼ cents. In Oklahoma the price of 3⅜ cents a gallon was a quarter cent better than a week previously.

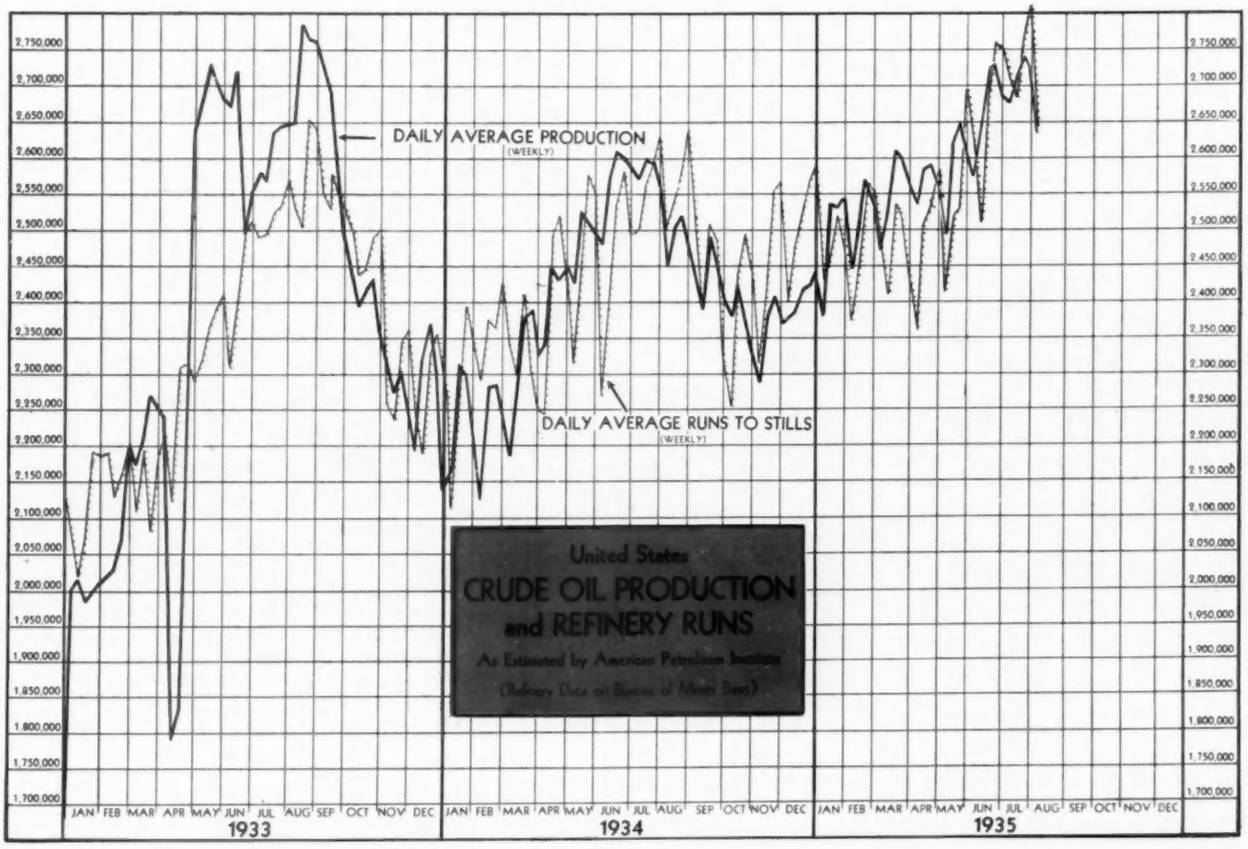
U. S. motor gasoline prices on tank car lots continued as follows at North Texas and Group Three (Oklahoma) refineries: third grade, or below 62 octane, 4⅝ cents per gallon; standard grade, 62-67 octane, 5⅛ cents; premium grade, 68-70 octane, 5⅝ cents. In East Texas the third grade price was the same as in North Texas-Oklahoma, but the two higher grades were one-eighth cent lower.

CALIFORNIA STEADY

With prices expected to show little change

THE general market in California seems to be fairly well pegged at present prices, and no material change is expected, probably for three or more weeks. Several factors enter into an analysis of the situation. The state has what is generally known as a dollar crude market, posted prices ranging 57 cents for 14 gravity to $1.26 for 36 gravity.

In the face of this posted price for crude, and with natural gasoline selling at five to six cents a gallon, refiners are selling the finished gasoline at prices ranging from 3.5 cents to six cents, the higher



prices obtaining only in the most favorable instances.

Gasoline is retailing at 9.9 cents to 13.5 cents, including the four-cent tax, in Southern California and the San Joaquin Valley. Margins to dealers range from two to four cents. One hundred percent dealers in most instances are given a four-cent margin, except for third grade where three cents is allowed. There is only one cent difference between the retail price of third grade and regular grade, making the net back to refiners the same for both grades.

There seems to be no disposition on the part of purchasing companies to reduce the posted price of crude, and at the same time it is apparent the larger companies have no early plans to increase the retail price of gasoline. General reports are to the effect that present prices are to hold until it is learned if proposed plans for a general stabilization of the entire market materializes.

Doubt Success

Well informed quarters are of the opinion that the proposed plans will never be realized. Under such plans, at least 95 percent of the producers must bind themselves not to produce any oil in excess of the allowable. It is very doubtful if that many signatures can be procured.

But even if the signatures are obtained, and even if purchasers of the crude would enter into a real agreement to assist in carrying out the plan, then the plan would have to be approved in Washington and finally a federal court O.K. would be necessary under the agreed judgment entered in court in San Francisco several years ago.

The plans call for the organization of the Pacific Petroleum Association and also call for the naming of J. R. Pemberton as umpire with duties similar to his present duties. Various committees would be selected to govern the administration of the agreement. The agreement would have no real teeth in it, and matters would soon revert back to the present situation.

Not many can be found who think the plan will work even if brought to final consummation. The Sherman Anti-Trust law stands in the way.

The present price war was brought about by a fight, largely on the part of the independents, to get gallonage, regardless of profits, and the disposition of smaller retailers to cut the price, regardless of how low or how high it is. There is a growing feeling in California that the fight is resolving into a battle where the stronger concern with ample funds will survive. Independents have demanded for years the privilege of selling at two cents under major company owned or controlled stations. Such a right has been repeatedly refused, and as a result of this refusal, independents have cut the price anyway.

Fuel Holding

Strange to say, fuel oil prices are holding up surprisingly well. Fuel oil can be purchased at small refining plants at 50 to 60 cents. The large companies refuse to sell at less than 75 to 90 cents for shipment. Stocks of natural gasoline are fairly steady, with a slight weakening of prices, although none of this product can be bought on the open market at less than five to 5¼ cents, while the going price is six cents.

Gasoline, according to specifications, can be purchased in tank cars at 4.5 to six cents, without tax. The supply of gas and Diesel engine oils is low and the prices range from $1.05 to $1.20.

EAST TEXAS STABLE

After one week of four cent gasoline

ELAPSE of a week since East Texas independent refiners advanced their price on gasoline sold to tank truck dealers to four cents per gallon, exclusive of taxes, reveals a fairly stable market situation for the first time this year. Most of the makeshift refineries in the district have temporarily suspended operations. Including six that were forced into receivership for repeated violation of state proration rules. The 25 plants now in operation are rated among the most efficient of the group. Stabilization of the tank truck prices has curtailed retail gasoline price wars in many sections of the state within trucking distance of East Texas. This is contrary to expectations in view of the large quantities of illegally produced crude made available to plants lately after being confiscated by the state and returned to the owners upon the payment of sums ranging from 10 to 30 cents per barrel. The state's confiscation program is popular with the plants having limited crude supplies as it assures an abundant supply of raw products at a nominal cost, another advantage is the granting of tenders by the state on all repossessed material, this enabling plants to ship to any point within the state via rail or truck without interference. Only a limited volume of the finished products derived from repossessed crude are getting by the federal tender board and reaching interstate markets. This confines the various hot oil rackets practiced in East Texas to a local proposition with no particular bearing on the general market situation outside the borders of the state.

Tank truck movement of gasoline failed to advance to a new peak the past week after showing an interrupted gain for the previous eight weeks. Shipments for the week ending August 5 amounted to slightly more than 4,000,000 gallons, as compared to more than 4,200,000 gallons one week ago. Approximately 67,000 barrels of crude was processed daily the past week by East Texas refiners who are connected to about 26,000 barrels of allowable crude daily. The difference represents withdrawals from repossessed stocks of hot oil, and current runs of illegal production. An accurate check on the volume of the latter is highly speculative since no check is available as to the amount of confiscated oil processed each day. It is quite apparent that many of the earthen pits bearing the repossessed oil are not being drained in proportion to indicated withdrawals while only two pits have been drained and ploughed up, according to reports.

East Texas Tank Car Shipments

Week Ending August 4, 1935

PRODUCTS	No. Cars	Estimated Gallons
Gasoline	549	4,442,012
Fuel Oil	211	1,973,221
Casinghead Gasoline	182	1,550,130
Crude Oil	141	1,276,872
Distillate	66	535,849
Gas Oil	37	309,609
Kerosene	37	302,164
Naphtha	16	129,761
Residuum	11	89,071
Total	1,250	10,608,689
Total Previous Week	1,268	10,703,797
Interstate	480	.....
Intrastate	471	.....
Coastwise	299	.....
Total	1,250	.....

TEXAS SPACING SUIT

Austin, Texas.—Governor Allred has announced that the State Board of Mineral Development has asked Attorney General McCraw to intervene on behalf of the state in a suit attacking validity of the statute requiring lessees of state lands to offset each well drilled within 1000 feet of the boundary lines of the state lease.

The validity of the statute has been attacked by Gulf Production Company in a suit to set aside a permit granted American Liberty Oil Company in the Sabine River-bed in East Texas.

Two interpretations are possible under this statute. The state interprets the statute as requiring one well for every offset within 1000 feet; many oil company attorneys contend that it requires the drilling of the initial well on a state lease whenever production is found within 1000 feet of the boundary lines of the state lease.

This is the issue which will be presented to the court in the suit filed by Gulf Production Company.

ENJOIN EARTH PITS

Austin, Texas.—Two injunctions forbidding operators to store oil in earthen pits have been issued by Judge J. D. Moore in the 98th District Court as the result of suits filed by the Attorney General.

Named defendant in one suit was the Riverside Refining Company operated by G. A. Devine and S. G. Gentry. In the second suit B. F. Phillips and C. Huff were named defendants.

The attorney general has begun an active campaign to eliminate this type of open pit storage, which is specifically forbidden by the statutes and has become prevalent in East Texas.

PRODUCTION RISES

Increase in crude oil output is recorded

UNITED STATES crude oil production last week, ending August 10, was 34,725 barrels per day higher than in the previous week, and some 61,000 barrels per day above the indicated daily market demand, as estimated for August by the Department of the Interior. The production for the week averaged 2,661,725 barrels daily, while the indicated market demand was estimated at 2,600,600 barrels.

A survey of the various sections of the country shows that the increased production of the week just passed, over the previous week, was due almost wholly to the rise in production in California. In this section production showed an increase of 7 percent above the daily output of the previous week. The increase was distributed among the several fields, only three of which showed a slight decline from the week before. These three were Playa del Rey, Kettleman Hills and Elwood.

This increase for California was by no means a reflection on the voluntary proration arrangement on the Pacific Coast. It was to be expected that production would rise during the opening portion of the month, and then decline later, as such trend was customary, even under the oil code. Even at last week's rate, production in California was only about 15 percent above the estimated market demand for August.

While Texas production showed a slight gain, following the drop of a week ago, there was only an increase of 6600 barrels, or about one-half of 1 percent. Oklahoma also showed very little change from the previous week, recording a drop of some 2400 barrels. Kansas revealed a decline also of 6475 barrels, which represented a relative drop of more importance. The decline was approximately 4 percent from that of a week ago. The largest relative decline was found in the Burrton-Haury field, which dropped almost one-fourth of the production of the previous week.

Louisiana Down

Louisiana production declined 1750 barrels despite the 5700 barrels per day produced in the newly discovered field of Rodessa. The Gulf Coast area was 6800 barrels lower than last week, which marked a drop of about 5½ percent. Despite this slight decline, the state was still some 12,000 barrels above the estimated daily demand for August.

Michigan remained unchanged from last week, although about 20 percent above the estimated daily demand for August. The Eastern States dropped 700 barrels, or almost 1 percent. Arkansas revealed an insignificant drop of 150 barrels, being just that many barrels under the estimated demand for August.

The Mountain States were up 1400 barrels, which was something like 2½ percent above the previous week and approximately 7 percent above the estimated daily demand for August. The gain was due solely to the increased production in Wyoming. New Mexico showed an increase of 200 barrels per day.

United States Crude Oil Production

Estimates Compiled by THE OIL WEEKLY

DISTRICT OR STATE	BARRELS DAILY FOR WEEK ENDING August 10	August 3
TEXAS—		
Texas Panhandle	55,500	56,800
North Texas	56,800	56,200
West Central Texas	25,900	24,400
West Texas	149,800	146,800
East Central Texas	47,200	47,100
*East Texas Field	435,200	434,700
†South Texas	55,500	54,500
†Texas Gulf Coast	179,500	178,300
*Total Texas	1,005,400	998,800
OKLAHOMA—		
Oklahoma City	144,925	136,850
Seminole Area	127,225	125,200
Tatums	4,725	4,775
Lucien	8,525	10,250
Fitts	15,025	24,450
Edmond	4,150	3,750
Others	191,800	193,550
Total Oklahoma	496,375	498,775
KANSAS—		
Ritz-Canton	8,025	7,525
Voshell	3,775	4,550
Nikkel-Hollow	6,425	7,400
Sedgwick	7,675	7,725
Burrton-Haury	15,775	20,375
Lorraine	6,500	4,750
Others	91,075	93,400
Total Kansas	139,250	145,725
LOUISIANA—		
North Louisiana	27,650	22,600
Louisiana Gulf Coast	114,400	121,200
Total Louisiana	142,050	143,800
ARKANSAS	30,550	30,700
CALIFORNIA—		
Long Beach	79,000	74,500
Santa Fe Springs	42,000	37,000
Huntington Beach	44,000	38,500
Dominguez	21,500	20,000
Inglewood	13,500	10,000
Ventura Avenue	37,000	36,000
Seal Beach	7,500	7,000
Midway-Sunset	56,500	50,500
Elwood	12,500	15,500
Kettleman Hills	60,000	61,000
Mountain View	33,000	30,000
Playa del Rey	16,000	18,000
Others	165,500	152,000
Total California	588,000	550,000
MOUNTAIN STATES—		
Wyoming	40,400	38,800
Montana	11,300	11,300
Colorado	4,100	4,300
Total Rocky Mountain States	55,800	54,400
NEW MEXICO	53,600	53,400
EASTERN STATES	105,500	106,200
MICHIGAN	45,200	45,200
*Total United States	2,661,725	2,627,000
*Surreptitiously produced oil in East Texas, not included in above figures, estimated at	40,000	35,000
Grand Total, including surreptitious production	2,701,725	2,662,000

†Output of Coastal Section of South Texas included with Texas Gulf Coast.

Crude Runs to Stills; Finished and Unfinished Gasoline; Gas and Fuel Oil Stocks; and Cracked Gasoline Production, Week Ended August 3, 1935

(Figures in thousands of barrels of 42 gallons each)

DISTRICT	Daily Refining Capacity of Plants			Crude Runs to Stills		Stocks of Finished Gasoline			(a) Stocks of Unfinished Gasoline	(b) Stocks of Other Motor Fuel	Stocks of Gas and Fuel Oil	Daily Charging Capacity of Cracking Units			Cracked Gasoline Production
	Potential Rate	Reporting		Daily Average	% Operated	At Refineries	Bulk Term in Trans. & Pipe Lines	Total at Refys., Term., etc.				Potential Rate	Reporting		Daily Average
		Total	%										Total	%	
East Coast	612	612	100.0	468	76.5	5,230	10,067	15,297	844	265	12,523	534	534	100.0	109
Appalachian	154	146	94.8	86	58.9	1,176	934	2,110	292	130	825	79	78	98.7	20
Ind., Ill., Ky.	442	424	95.9	358	84.4	5,341	3,733	9,074	671	55	5,128	349	348	99.7	125
Okla., Kans., Mo.	453	384	84.8	260	67.7	2,748	2,223	4,971	639	625	4,770	256	228	89.1	58
Inland Texas	330	160	48.5	77	48.1	980	70	1,050	234	1,545	1,720	148	105	70.9	25
Texas Gulf	617	595	96.4	544	91.4	4,750	226	4,976	1,821	245	11,409	399	393	98.5	132
Louisiana Gulf	169	163	96.4	106	65.0	665	476	1,141	280	.....	4,038	77	74	96.1	19
North La.,—Ark.	80	72	90.0	33	45.8	162	75	237	32	180	375	46	44	95.7	6
Rocky Mountain	97	60	61.9	44	73.3	713	.....	713	104	60	783	46	39	84.8	11
California	852	789	92.6	491	62.2	6,724	1,964	8,688	967	2,855	64,572	280	280	100.0	61
TOTALS WEEK: August 3, 1935	3,806	3,405	89.5	2,467	72.5	28,489	19,768	48,257	5,884	5,960	106,143	2,214	2,123	95.9	565
July 27, 1935	3,806	3,405	89.5	2,663	78.2	28,623	19,534	48,157	6,012	5,915	105,473	2,214	2,123	95.9	582

Below are set out estimates of Crude Runs and Cracked Gasoline Production on B. of M. Basis for week ended August 3, 1935, compared with August, 1934 Bureau figures.

Estimate B. of M. Basis, August 3, 1935	2,648		595
Estimate B. of M. Basis, July 27, 1935	2,825		610
U. S. B. of M., August, 1934: Daily Average Crude Runs	2,571	U. S. B. of M., August, 1934: Daily Average Cracked Production	547

(a) Amount of Unfinished Gasoline contained in Naphtha Distillates.
(b) Estimated. Includes Unblended Natural Gasoline at refineries and plants; also Blended Motor Fuel at plants.

CONFISCATE OIL

Austin, Texas.—Confiscation of 372,000 barrels of fuel oil located in Rusk County resulted from a suit filed by the State in 98th District Court last week.

J. I. Dyer was defendant in the action, and Max Jarvis was named receiver for the oil, which is to be sold at public auction by the sheriff of Rusk County. The court decree provided for the destruction of the earthen pits in which the oil is now stored.

FILE MORE SUITS

Austin, Texas.—Suits resulting in the confiscation of 186,115 barrels of oil have been filed by Assistant Attorney General W. J. Holt in the 98th District Court at Austin.

These actions were as follows: J. C. Ulmer, 8000 barrels; Zeke Loman, 53,000 barrels; Arte Refining Company, 33,345 barrels; S. H. Myers, 47,948 barrels; H. Ginsberg (View Marketing Company), 43,822 barrels.

Holt has brought 35 of these cases which have resulted in the confiscation of oil. In each instance where the oil has been stored in earthen pits, court decrees have provided for the destruction of the pits after the oil is removed.

MONUMENT LINE

Hobbs, New Mexico—The Texas Pipe Line Company has finished work on the extension of its pipe line system from the Monument field, Lea County, to connect with The Texas Pipe Line Company's Saunders 1, flowing oil producer completed recently about 3½ miles northeast of the field. Six-inch pipe was used in the extension line, as considerable development work is in store for the area.

WEST KANSAS LINE

Tulsa.—Although all details are lacking there is considerable interest in a meeting held here late in the week to discuss an eight-inch oil pipe line between Valley Center in Sedgwick County and the Shallowater pool of Scott County in the western portion of the state. Those attending the meeting and identified in the report were Frank Phillips, president of Phillips Petroleum Company; W. G. Skelly, president of Skelly Oil Company; and Dan Moran, president of Continental Oil Company. Representatives of several other major and large independent concerns were present. This is the line which has been rumored for several weeks but until the meeting of this week only Continental Oil Company's name had been mentioned. According to rumor the line eventually would be extended to Denver, Colorado, where Continental Oil Company has a 1500-barrel skimming and 1000-barrel cracking capacity plant.

Comparison of Permits Granted for New Wells

STATE—	Week Ending Aug. 3	Total this Mo.	Total this Year	Total this Date Last Year	1934 Year Total
Arkansas	1	1	26	37	100
California	27	27	570	321	629
Louisiana	20	20	520	474	799
Kansas	18	18	608	582	1,015
Michigan	10	10	361	289	460
Oklahoma	35	35	1,331	1,245	2,045
Texas	190	190	6,889	6,358	10,550
Total	301	301	10,305	9,305	15,598

CRUDE OIL PRICE QUOTATIONS

(Figures Represent Basic or Flat Prices—Revised to August 9, 1935)

DISTRICT	Low Grav.	Dif.	High Grav.	Date
Oklahoma-Kansas	28—$ .84	2¢	40—$1.08	9-29-33
N. and N.-C. Texas	28— .79	2¢	40— 1.03	9-29-33
Texas Panhandle				
Gray County	34— .79	2¢	40— .91	9-29-33
Carson-Hutchinson	34— .69	2¢	40— .81	9-29-33
West Texas				
Ector, Pecos, Wk'lr	*.75			9-29-33
Crane, Upton, Howard and Glasscock	*.70			9-29-33
East Texas	*1.00			9-29-33
Texas Gulf Coast				
Conroe	35— 1.09	2¢	40— 1.19	9-29-33
Tomball	*1.15			9-29-33
Cleveland	*1.00			1-11-34
†Goose Creek, Hull Liberty, Orange, Pierce Junction, Moss Bluff, Raccoon Bend, Sour Lake, Spindletop, Sugarland, West West Columbia,	Below			
Humble, Rabbs Ridge	20— .82	2¢	34— 1.12	9-29-33
South and S.W. Texas	Below			
Refugio (Light)	20— .82	2¢	34— 1.12	9-29-33
Refugio (Heavy)	*.80			6-29-35
Saxet	*.80			6-29-35
Mirando	*.75			6-29-35
Pettus	*1.05			9-29-33
Salt Flat	*.87			9-29-33
Darst Creek	*.87			9-29-33
Arkansas				
El Dorado (Light) and Rainbow	29— .79	2¢	40— 1.03	3-17-34
El Dorado East Field and Smackover	*.70			9-29-33
North Louisiana	29— .79	2¢	40— 1.08	9-29-33
Urania	*.85-*.87			1- 1-34
South Louisiana	Below			
Lockport	20— .80	2¢	34— 1.10	9-29-33
	Below			
Iowa, Cameron Mds.	20— .70	2¢	34— 1.00	9-29-33
Rocky Mountain States				
Salt Creek	29— .84	2¢	40— 1.08	9-29-33
Elk Basin	*1.17			9-29-33

* All gravities—flat rate.
† Gulf Coast prices as posted by Humble Oil & Refining Company.

DISTRICT	Low Grav.	Dif.	High Grav.	Date
Grass Creek (Light)	*$1.17			9-29-33
Big Muddy	*1.01			9-29-33
Rock Creek	*1.02			9-29-33
Sunburst	*1.20			7-19-35
Lance Creek	*1.02			8-25-33
Osage	*.62			8-25-33
Cat Creek	*.45			8-25-33
Pondera	*.65			8-25-33
Hog Back, N. M.	*1.00			9- 8-33
Lea County, N. M.	*.75			9-29-35
Mid-West States				
Lima	*1.15			2- 1-35
Illinois	*1.13			1- 5-34
Princeton	*1.13			1- 5-34
Western Kentucky	*1.13			5-22-35
California				
Signal Hill	14— .65	1¢	16— .66	9- 6-33
	17— .69	2¢	22— .84	9- 6-33
	23— .88	3¢	30— 1.09	9- 6-33
Seal B., Alamitos Hts.	19— .65	3¢	20— .68	9- 6-33
	21— .72	4¢	22— .76	9- 6-33
	23— .81	4¢	26— .93	9- 6-33
	27— .98	4¢	30— 1.10	9- 6-33
Huntington Beach	14— .65	4¢	15— .69	9- 6-33
	16— .72	3¢	19— .81	9- 6-33
	20— .83	3¢	28— 1.07	9- 6-33
	29— 1.09	3¢	30— 1.12	9- 6-33
Inglewood	14— .65	4¢	16— .73	9- 6-33
	17— .76	4¢	18— .80	9- 6-33
	19— .83	4¢	20— .87	9- 6-33
	21— .90	4¢	22— .94	9- 6-33
	23— .97	4¢	24— 1.01	9- 6-33
Playa del Rey	14— .65	1¢	15— .66	9- 6-33
	16— .69	4¢	17— .73	9- 6-33
	18— .76	4¢	19— .80	9- 6-33
	20— .83	4¢	21— .87	9- 6-33
	22— .90	4¢	23— .94	9- 6-33
	24— .97	3¢	25— 1.00	9- 6-33
			26— 1.04	9- 6-33
Olinda-Brea Canyon	14— .65	4¢	16— .73	9- 6-33
	17— .76	3¢	28— 1.10	9- 6-33
Athens-Rosecrans: Domingues	23— .83	3¢	24— .86	9- 6-33
	25— .90	4¢	26— .94	9- 6-33
	27— .97	3¢	29— 1.04	9- 6-33
	30— 1.08	4¢	31— 1.12	9- 6-33
			32— 1.15	9- 6-33
Elwood (fob ship)	33— 1.03	3¢	37— 1.15	9- 6-33
Torrance	14— .65	1¢	15— .66	9- 6-33
	16— .69	3¢	20— .81	9- 6-33
	21— .83	3¢	26— .98	9- 6-33

* All gravities—flat rate.

DISTRICT	Low Grav.	Dif.	High Grav.	Date
Richfield	15—$ .65	2¢	16—$ .67	9- 6-33
	17— .70	4¢	20— .82	9- 6-33
	21— .85	4¢	22— .89	9- 6-33
	23— .93	4¢	24— .97	9- 6-33
	25— 1.00	4¢	27— 1.08	9- 6-33
	28— 1.11	4¢	29— 1.15	9- 6-33
Whittier-LaHabra	15— .65	3¢	18— .74	9- 6-33
	19— .78	3¢	24— .93	9- 6-33
Montebello	19— .65	1¢	20— .66	9- 6-33
	21— .69	3¢	22— .72	9- 6-33
	23— .76	4¢	24— .80	9- 6-33
	25— .85	4¢	26— .89	9- 6-33
Coyote Hills	16— .65	3¢	19— .74	9- 6-33
	20— .78	3¢	29— 1.05	9- 6-33
	30— 1.09	3¢	34— 1.21	9- 6-33
Santa Fe Springs	21— .72	4¢	22— .76	9- 6-33
	23— .79	4¢	25— .87	9- 6-33
	26— .90	4¢	28— .98	9- 6-33
	29— 1.01	4¢	30— 1.05	9- 6-33
	31— 1.08	4¢	33— 1.16	9- 6-33
	34— 1.19	4¢	35— 1.23	9- 6-33
	36— 1.26	4¢	38— 1.34	9- 6-33
New Hall, McKittrick, Kern River	14— .57		19— .57	9- 6-33
Midway-Sunset, Elk Hills, Buena Vista Hills	17— .57	4¢	18— .61	9- 6-33
	19— .64	3¢	22— .73	9- 6-33
	23— .77	4¢	33— 1.17	9- 6-33
Lost Hills	17— .57	4¢	21— .73	9- 6-33
	22— .76	3¢	30— 1.00	9- 6-33
Coalinga	17— .57	1¢	18— .58	9- 6-33
	19— .62	3¢	21— .68	9- 6-33
	22— .72	3¢	25— .81	9- 6-33
Wheeler Ridge	17— .57	1¢	18— .58	9- 6-33
	19— .61	3¢	25— .79	9- 6-33
Kettleman Hills	33— .93	3¢	39— 1.11	9- 3-33
Pennsylvania				
Bradford	*1.95			7-16-35
Sw. Pa. Pipe Line	*1.67			7-16-35
Eureka Pipe Line	*1.62			7-16-35
Buckeye Pipe Line	*1.52			7-16-35
Corning Grade	*1.32			10- 2-33
Michigan				
Central Michigan	*1.20			9-30-33
Muskegon	*.70-1.00			12-31-32
Canada				
Petrolia	*2.10			9- 9-33
Oil Springs	*2.17			9- 9-33

* All gravities—flat rate.

Summary of Wells Completed in the United States

Week Ending August 3, 1935

	Completions	Oil Wells	Gas Wells	Failures	Initial Production	Total Completions 1935	Total Completions this date 1934
Alabama	...	...	...	...	.....	4	2
Arkansas	3	2	...	1	850	89	43
California	27	19	4	4	13,690	499	220
Colorado	1	...	...	1	.....	7	10
Illinois	...	...	...	...	.....	9	9
Indiana	...	...	...	...	.....	108	98
Kansas	24	20	...	4	8,595	817	535
Kentucky	...	...	...	...	.....	92	86
Louisiana	23	14	...	9	5,890	451	439
Michigan	18	13	2	3	16,835	287	242
Mississippi	...	...	...	...	.....	13	19
Montana	8	4	1	3	440	84	84
New Mexico	1	...	...	1	.....	162	58
New York	...	...	...	...	.....	...	4
Ohio	27	8	10	9	205	860	554
Oklahoma	38	27	...	11	45,685	1,394	1,188
Pennsylvania	2	1	1	...	3	78	213
Texas	306	217	8	81	494,000	7,219	5,821
Utah	...	...	...	...	.....	...	3
West Virginia	14	7	5	2	187	291	222
Wyoming	5	5	...	...	1,830	41	31
Total this week	497	337	31	129	588,210	12,506	9,931
Total last week	445	306	26	113	626,520	...	...
Total this year	12,506	8,255	1,030	3,231	22,567,155	...	...

MAJOR PRICE CHANGES

	Penna. (Nat. Tr.)	Mid-Cont. (36 Gr.)	Calif. (26 Gr.)
March 5, 1933	.....	.....	Cut 24
May 2, 1933	.....	Cut 19	.....
May 9, 1933	Cut 20	.....	.....
May 22, 1933	Up 10	.....	.....
June 19, 1933	Up 10	Up 19	.....
June 26, 1933	Up 10	.....	Up 9-12
July 6, 1933	Up 13	Up 10	.....
July 17, 1933	Up 15	.....	.....
July 28, 1933	Up 15	.....	.....
August 11, 1933	Up 10	.....	.....
August 24, 1933	.....	Up 10	.....
August 30, 1933	Up 15	.....	.....
September 6, 1933	Up 10	Up 10	Up 15
September 8, 1933	.....	Up 15	.....
May 1, 1934	Up 10	.....	.....
November 6, 1934	Cut 25	.....	.....
December 6, 1934	Cut 25	.....	.....
January 4, 1935	Up 15	.....	.....
February 4, 1935	Up 15	.....	.....
May 16, 1935	Cut 15	.....	.....
June 26, 1935	Cut 15	.....	.....
July 16, 1935	Cut 10	.....	.....

CRUDE PRODUCTION TAXES

Oklahoma—Five percent of gross value less royalty interest.

Texas—Two cents or 2 percent, whichever is higher.

Louisiana—From four to 11 cents a barrel, depending upon gravity.

Arkansas—2.6 percent of gross market values.

Montana—Three percent of gross value at well and ½-cent per barrel.

Wyoming and New Mexico—Production tax based upon state and county assessments.

California—.66443 mills per barrel of oil produced and 17.39 cents per acre on proved oil lands.

Edmond Field

HAS WELLS WITH VARYING INITIAL PRODUCTION

WEEKLY STAFF REPORT

Oklahoma City.—The ups and downs of operators on a geologically complicated structure were ably demonstrated during the week in the Edmond pool, four miles west of Edmond in northwestern Oklahoma County. In the southern portion of the pool Amerada Petroleum Corporation and Stanolind Oil & Gas Company's Suenram 3, SE NE NE 6-13n-3w, flowed 282 barrels on a four-hour potential gauge and was estimated making 2,000,000 cubic feet of gas. Shut in pressure was 2000 pounds and bottom hole pressure 2805 pounds, the highest pressure now existing in the field. It is a south offset to the same operators' Suenram 2 which came in in May of this year for a flow of 12,086 barrels initially. The new well was cutting one percent water, thought to be from the drilling fluid.

One location to the north and two west Slick-Urschel Oil Company topped Simpson dolomite at 6470 feet, drilled to 6656 feet and acidized with 2500 gallons in their Suenram 2, NW NW NE 6-13n-3w. It was awaiting acid reaction. Both wells show considerable dip as compared with the nearest points of correlation. The same operator's Suenram 1, SW SW NW 6-13n-3w, the first location east, made 1520 barrels on a four-hour potential gauge, production coming from Wilcox sand. In the northern portion of the pool Marathon Oil Company's Dahl 6, SE SW SE 31-14n-3w, had Wilcox sand from 6635 to 6703 feet, the total depth, and yielded 535 barrels on a four-hour gauge along with 23,000,000 cubic feet of gas. Shut in pressure was 2050 pounds and bottom hole pressure 2711 pounds. It is a north offset to Slick-Urschel Oil Company's Suenram 1 which made 1520 barrels in four hours.

A ruling is expected soon on the petition of Slick-Urschel Oil Company for 10-acre well spacing in the new Britton area of northwestern Oklahoma County and immediately south of the Edmond pool. When the first hearing was held week before last citizens of the town of Britton came in a body to oppose the request. In exploring the structure with seismograph the companies were unable to make shots inside the townsite so it is not definitely known that a condition structurally favorable to the accumulation of oil exists beneath it. However, all evidences to the north and south of the townsite point to a continuous structure. This was a point of considerable debate during the hearing which was concluded late Saturday afternoon, August 3. Principal witnesses for the 10-acre rule were Harold Thomas, chief geologist for the Slick-Urschel Oil Company and C. C. Brown, assistant chief conservation officer. Lon B. Turk, consulting geologist of Oklahoma City, testified in behalf of several small concerns and individuals who own town lots.

The law which was passed by the fifteenth session of the legislature seems to have been generally misunderstood. Apparently it has been generally interpreted as giving the corporation commission full power to establish a spacing rule. Under its provisions, as interpreted by the oil and gas conservation department, the commission may establish drilling units of any specified size. As many wells as the operators desire may be drilled but in event of restrictive measures oil production would be held to the specified drilling unit. For example: if the commission should decide on a one-well to 10 acres rule any operator drilling two wells on a 10-acre tract would be allowed to produce only one-half of the amount allowed wells coming within the provisions of the 10-acre rule.

In the Britton area between Edmond pool and the Oklahoma City pool, Sinclair Prairie Oil Company's Corbett 1, NE NW NE 17-13n-3w, one of the two discovery wells, cored from 6710½ to 6714½ feet, recovering eight inches of stained sand and dolomite with no water showing. This well was completed early in July, making 485 barrels from second Wilcox sand at 6645 to 6706 feet. Within a few weeks it was making 30 percent water. In the same area J. E. Mabee's Duellbert 1, SW NE SE 20-13n-3w, was drilling below 6160 feet; Slick-Urshel Oil Company's Meeker 1, NW NW NW 29-13n-3w, was drilling below 5300 feet; and Slick-Urschel Oil Company et al's Zielney 1, NE NE SW 29-13n-3w, was drilling below 6130 feet.

To the northwest of the Edmond pool, Gypsy Oil Company and Indian Territory Illuminating Oil Company's Salisbury 1, NW NE NE 13-14n-4w, one and three-quarter miles northwest of production, bailed to 6600 feet, shut down and in two hours had approximately 200 feet of brackish water in the hole. Total depth is 6670 feet, 28 feet below top of the Wilcox sand.

In the Koetsch area, also in northwestern Oklahoma County, Sinclair Prairie Oil Company's Glenn 1, NE NE SE 27-15n-3w, was shut down for water at 5467 feet; The Texas Company's Wood 1, SW SW NE 34-15n-4w, was drilling below 4580 feet; Sinclair Prairie Oil Company's Foree 1, NE NE NE 1-16n-1w, set 7-inch casing at 5225 feet and was waiting on cement to set with total depth at 5235 feet; and Olson, Anderson-Prichard and Frank Buttram's Cavalt 1, NW SW SE 22-16n-3w, was waiting on cement to set on surface pipe.

GAUGE NAVAL POOL

Tulsa.—The Naval Reserve pool of western Osage County was placed on capacity flow August 2 and will be gauged by wells for five day periods to determine the extent of the future need of restrictive measures. This pool, which produces the highly desired Bartlesville sand oil, has been voluntarily prorated. Its August daily allowable was set at 8050 barrels. On the first day of testing production was 9899 barrels; on the second, 10,795 barrels; on the third, 10,743 barrels; and on the fourth, 11,533 barrels. The number of wells on capacity flow each day was not reported. According to the plan each well in the field will be given a five-day open flow gauge. Wells to be so gauged and the schedule for gauging will be arranged by the oil and gas inspector of the Indian Agency without advance notice to the respective operators. In this manner the possibility of preparing wells especially for the gauges will be remote.

CLEVELAND WILDCAT

Norman, Okla.—Contract has been let for A. C. Parsons 1, SW SW SE 30-9n-1e, a 6750-foot wildcat test to be drilled 13 miles east of here in northeastern Cleveland County on what apparently may be the Ponca City Anticlinal trend which farther to the north parallels the Nemaha Granite Ridge to the east. Amerada Petroleum Corporation, Stanolind Oil & Gas Company and Asa Lee Mayes, Inc., will be the operators of the test. Other owners in the 1800-acre block are Phillips Petroleum Company, The Texas Company, Gypsy Oil Company, Magnolia Petroleum Company and M. K. Owenbey. In the event production is found the community members will decide upon an operator. Several years ago the Cleveland County Development Company drilled a 3000-foot dry hole in the township. This was prior to development along what is now the southern portion of the Granite Ridge country and is now known not to have been deep enough even for geologic correlations.

To Gauge Gas

Orders have been issued by state conservation officer W. J. Armstrong for the taking of gas potentials in the Oklahoma City pool. Since oil potentials must be taken for the coming proration period in September, the announcement letter suggested that gas potentials be completed during August. The Oklahoma law provides that no gas well may take over 25 percent of its capacity as determined by gauges taken at intervals of 90 days. During the rush of other matters this feature has been largely overlooked in the Oklahoma City pool. Although there is great demand for gas for lifting purposes it is not believed that restriction of withdrawal to 25 percent will ma-

terially effect the situation. Pressures in most wells have dropped to low points and in many cases they are required to deliver into high pressure gas lines so it is doubtful that the withdrawal has been in excess of the allowed 25 percent. Method of taking gauges will be left to a committee appointed by Armstrong.

OKLAHOMA

Completions

Company, Well and Location	Init. Prod. Bbls.	Depth
CARTER COUNTY—		
Karchmer & Smith's Lynn 3, se ne ne 31-1s-2w	20	2026
Coline Oil Co.'s Higgins "B" 11, ne se sw 6-2s-2w	122	1801
Donahue et al's Senter 1, ne ne ne 6-4s-2e	*	1896
CREEK COUNTY—		
Elm Oil Co.'s Manuel 32, cnl nw ne 4-18n-7e (otd 2364)	25	2582
Owen et al's Riverbed 13, nw sw sw 17-18n-7e (otd 2390)	65	2457
GRADY COUNTY—		
Magnolia Pet. Co.'s Harrison 5, ne se ne 28-3n-5w	*	2117
GREER COUNTY—		
Fred Morgan et al's Carder 1, csw se 19-4n-22w	*	3228
HUGHES COUNTY—		
Olympic Oil Co.'s Dixon 1, ne sw nw 12-9n-8e (pb 1700)	188	4279
JACKSON COUNTY—		
Whatley & Whatley's Holt 1, nw sw se 20-1n-20w	*	1565
MARSHALL COUNTY—		
Neff & Godfrey's Rutherford 1, ne se nw 13-4s-5e	*	271
Leavell Coal Co.'s Eppler 9, nw sw ne 36-7s-5e	4	454
MUSKOGEE COUNTY—		
Foltz's Newman 1-A, sw sw nw 16-14n-17e	20	1908
OKFUSKEE COUNTY—		
Anderson & Kerr's Phillips 1, se se ne 32-13n-10e	*	3710
OKLAHOMA COUNTY—		
American O&G Co.'s Washington Park 4, nw nw sw 35-12n-3w	216	6356
OSAGE COUNTY—		
The Texas Co.'s Kenny 6, nw sw sw 9-24n-7e	82	2702
Johnson O. & Ref. Co.'s 9, se ne sw 30-21n-9e	*	350
Johnson O. & Ref. Co.'s 2, cn½ nw se 30-21n-9e (otd 346)	134	2328
Gypsy & Continental Oil Co.'s 3, nw se sw 12-23n-7e	40	2907
Sinclair Prairie & I. T. I. O. Co.'s 3, se ne se 9-25n-6e	2040	2853
4, ne se se 9-25n-6e	4128	2836
Kasishke, Incorporated's 10, ne nw sw 15-25n-6e	90	2817
Sinclair Prairie Oil Co.'s 3, se ne ne 16-25n-6e	960	2861
Barnsdall Oil Co.'s 4, se se ne 35-25n-11e	36	1727
Enterprise Transit Co.'s Williams 2, se nw nw 35-26n-6e	1138	2930
PONTOTOC COUNTY—		
Magnolia Pet. Co.'s Shaffer 5, sw sw nw 25-2n-6e	1554	4360
Magnolia Pet. Co.'s Shaffer 6, nw se nw 25-2n-6e	6240	4400
Phillips Pet. Co.'s Norris 4, se se sw 26-2n-6e (pb 2700)	5180	4415
Delaney et al's Smith 3, se se se 26-2n-6e	18,528	4334
Moore et al's Schauers 4, se sw nw 29-2n-7e	2046	4207
Patrick 3, sw nw ne 31-2n-7e	1569	4105
Fleetborn Oil Corp.'s Oliver 2, ne nw se 21-4n-5e	*	1140
POTTAWATOMIE COUNTY—		
Watchorn et al's Krouch 1, se ne ne 4-7n-4e	*	4150
SEMINOLE COUNTY—		
The Texas Co.'s Mayhue 7, nw ne nw 14-9n-6e	100	3904
Champlin Refining Co.'s See 9, nw ne se 30-7n-8e	1104	4171
STEPHENS COUNTY—		
Travis et al's Stover 2, sw nw sw 16-1n-8w	*	2498
Wirt Franklin's Barber 1, nw nw nw 4-1s-8w	26	2109
L. H. & J. D. Oil Co.'s Cummings 1, se ne nw 27-1s-8w	*	2394
TULSA COUNTY—		
Somerset Oil Co.'s Depriest 2, cel ne ne 35-17n-12e	30	2327

*Failures; †Junked; ¶Million cu. ft. gas.

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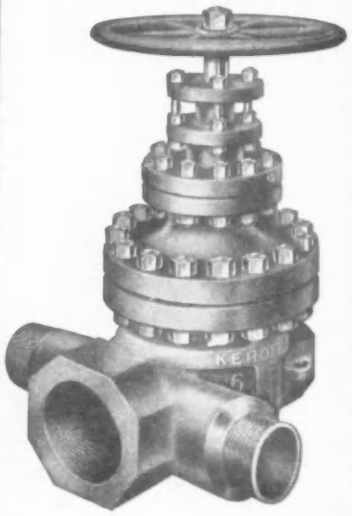

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HUNTON WELL

Is completed in old Carr City field

Seminole, Okla. — Creekmore-Wolf, Incorporated's No. 1, SW NE NE 2-8n-5e, in the old Carr City pool of Seminole County, topped Misener sand at 3974 feet, Hunton lime at 3985 feet and drilled Sylvan shale from 3998 to 3999, the toal depth. Plugged back to 3998 feet and treated with 2000 gallons under an 85-barrel oil load it yielded 454 barrels on the swab.

KANSAS ACTIVE

With 90 wildcat tests in state now drillilng

KANSAS

WEEKLY STAFF REPORT

Wichita, Kan.—The exploratory situation in Kansas continues to be of wide interest with approximately 90 wildcat tests under way. Failure of operators in the more recently discovered pools in the western portion of the state to obtain outlets or adequate outlets is tending to greatly retard development in the proved and semi-proved areas, this being reflected in the figures which are published from week to week which have indicated a general slowing down in the state. Scouts made 18 first reports during the week and reported 24 completions as compared to 16 first reports and 29 completions during the preceding week. Again no one county had a commanding lead, the work being rather evenly scattered among 12 counties. Ellsworth and Russell Counties led with three first reports each; Greenwood and Reno Counties had two each; and Chase, Clark, Cowley, Graham, Harvey, Rice, Rush and Stafford Counties, one each.

The percentage of success was considerably above the average when 20 of the 24 completions were oil wells with combined initial production of 8597 barrels. The other four were dry holes. The three wildcat completions resulted in one discovery in Stafford County rated at 185 barrels initially, and total drilling footage of 10,787 feet. One old well was deepened 11 feet and 20 others with combined total of 58,-564 feet, made a total of 69,362 feet of completed drilling.

Amerada Petroleum Corporation and Sunray Oil Company's Gassoway 9, SW SE SW 14-32s-2e, new gusher which attracted wide attention week before last in the old Oxford pool of eastern Sumner County, flowed 5819 barrels of oil on a 24-hour potential gauge and is rated as the largest well in the state. Previously Hartman and Blair's Rouback 1, SE SE NW 2-14s-15w, in western Russell County, held this distinction with a rating of 4076 barrels in 24 hours. The new Oxford well is producing from Simpson dolomite at 2820 to 2886 feet and is an old well drilled deeper from the lower portion of the Pennsylvanian series from which it has been producing for several years.

TO GAUGE GAS

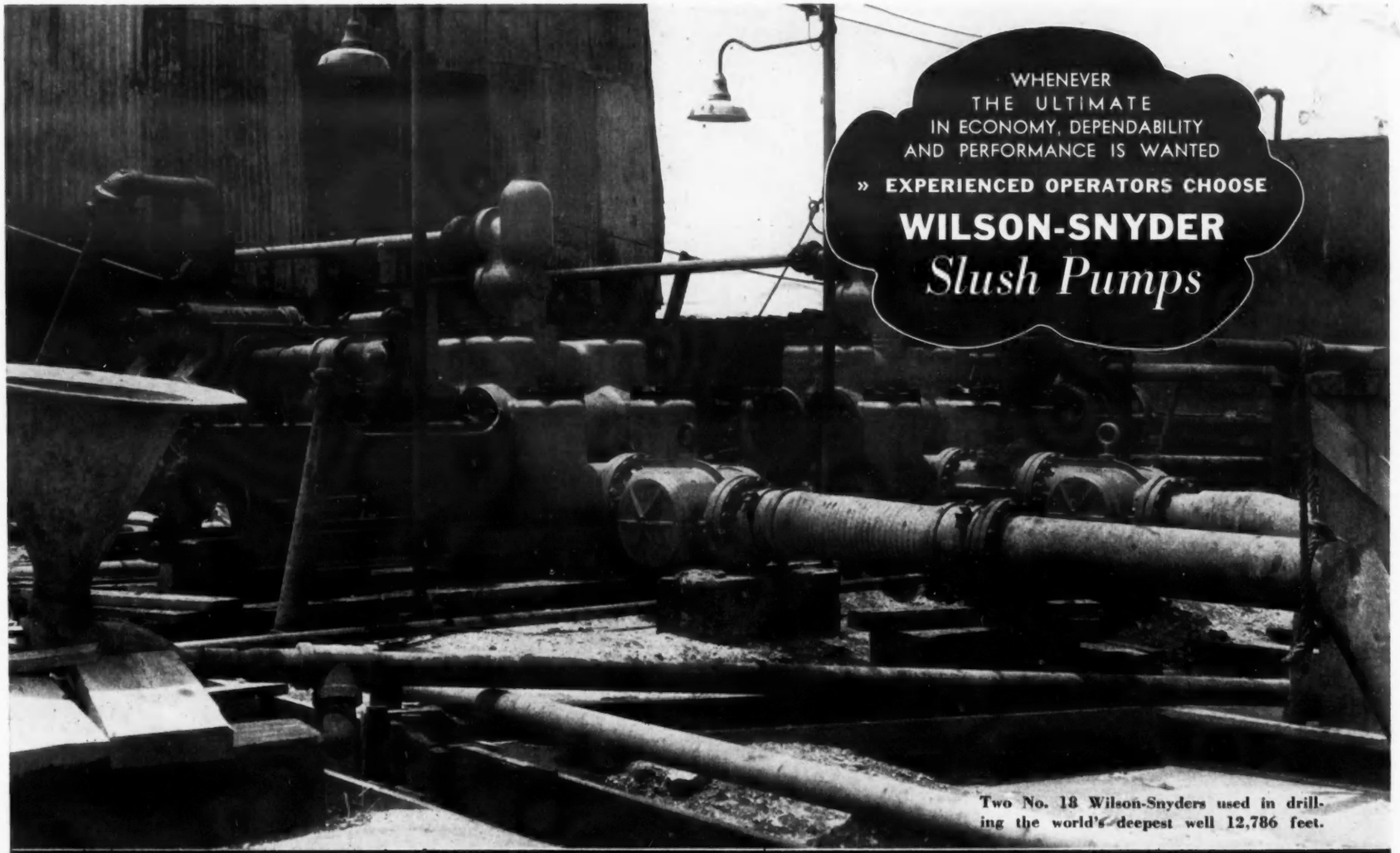
Wichita, Kansas.—Operators of combination oil and gas wells in Kansas have been notified by the director of the conservation division of the corporation commission that in the future it will be necessary to gauge the flow of gas from such wells at frequent intervals. Operators are asked to submit a correct log of the wells, casing records, present status and to show whether the well is tubed or producing through a bradenhead. It is required that the top of all vents or risers be one piece of pipe with plain smooth ends, free from collars, holes, other connections or any inside obstruction, for a length of at least eight times the diameter of the pipe. The top end should be cut square off and be free from burrs or other obstructions. Any attempt at reduction of gas-oil ratio must be reported on such combination wells.

KANSAS

Completions

Company, Well and Location	Init. Prod. Bbls.	Depth
BARTON COUNTY—		
Hilligoss et al's Isern 2B, nw ne ne 12-20s-11w	1581	3312
BUTLER COUNTY—		
Sitrin Brothers' Cook 10, cs¼ ne ne 4-26s-5e	40	2646
COWLEY COUNTY—		
Wakefield's Tharp 1, se se ne 10-32s-3e	*	3465
ELLIS COUNTY—		
Stanolind O&G Co.'s Penny-Wann 1, nw sw se 12-15s-20w	*	3716
ELLSWORTH COUNTY—		
Gypsy Oil Co.'s Nienke 1, sw sw sw 12-17s-9w	*	3232
Smith-Ash & Gypsy Oil Co.'s Shonyo 2, se sw sw 24-17s-10w	339	3240
GREENWOOD COUNTY—		
Abe Markus' Shook 1, sw sw se 31-23s-12e	35	1887
Shaeffer & Howell's Schneider 16, sw sw nw 15-23s-13e	75	1735
McPHERSON COUNTY—		
Shell Pet. Corp.'s Fleming 4, se sw nw 11-19s-2w	428	3392
Sinclair Prairie Oil Co.'s Moorehouse 2, ne se ne 4-21s-3w (otd 3497)	345	3508
RENO COUNTY—		
National Union Co.'s Myers 1, se ne nw 34-23s-4w (pb 3387)	25	3685
Shell Pet. Corp.'s Danton 1, cne ne 16-24s-4w	644	3358
RICE COUNTY—		
Harburney's Wendell 1, sw sw ne 32-19s-10w	703	3293
Shell Pet. Corp.'s McFarland 3, se ne nw 7-20s-9w	434	3281
Shell Pet. Corp.'s McFarland 4, ne se nw 7-20s-9w	1142	3287
RUSSELL COUNTY—		
McMorrow et al's Atherton 1, nw nw ne 30-13s-14w	560	3289
Hartman & Blair's Baier 1, se sw se 36-13s-5w	426	3315
Russell Oil Corp.'s Miller 3, se sw se 30-14s-13w	725	2975
Smoky Hill Oil Co.'s Miller 2, ne ne ne 31-14s-13w (pb 3156)	210	3160
Central Petroleum Co.'s Foster 1, sw sw nw 3-14s-15w	616	3106
Stanolind O&G Co.'s Baxter 1, ne ne nw 5-14s-15w	74	3062
STAFFORD COUNTY—		
Davis et al's Riley 1, se se se 19-22s-11w (pb 3603)	185	3606
WOODSON COUNTY—		
Schull Drilling Co.'s Dewey 1, se se se 1-24s-13e	10	1691
Jones & Cannon's Cannon 1, ce¼ se se 11-25s-13e	*	1618

*Failures; †Junked; ¶Million cu. ft. gas.



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President Urges Pact

[*Continued from page 8*]

exemption, such agreements must provide for compliance with the national labor relations act, for the payment of adequate minimum wages and for the maintenance of fair maximum hours.

The agreements are intended to provide for economic control of production and the orderly development of fields or pools, or the operation of refineries in such manner that non-integrated or semi-integrated refiners may compete on a fair basis with the integrated companies.

The board is to be an independent body, consisting of five members, receiving salary at the rate of $12,000 a year.

In the Thomas bill, imports are to be limited not only under the conditions outlined in the House measures but also if they are at a ratio to domestic production greater than that which prevailed in the last six months of 1932. The Senate draft also provides for the appointment of a Petroleum Advisory Committee from among the members of the industry to aid the board in the negotiation of voluntary agreements and in other matters. Further, the salaries of the members of the board are fixed at $10,000 per year, and provision is made for transfer by the President, at any time, of the board or any of its functions to any executive department.

It is the status of the board which will be the chief subject of controversy in the consideration of the measure.

In the writing of the House bill an effort was made to divorce all control of oil from Secretary of the Interior Ickes. However, that official, apparently forseeing the possibilities of further legislation next session, opposed this bitterly and succeeded in securing from the President support for his demand that the board be placed in his department.

Discussing the legislation August 7, the President explained that he desired to have the board independent but preferred to have it report to a Cabinet member rather than direct, as this would relieve the Chief Executive of much detail.

The legislation would not be characterized as part of the "must" program, the President said, but it was felt desirable that the interstate compact be ratified this session, if possible.

Opposition Is Forming

As the measures appeared in print for the consideration of members of Congress, murmurs of opposition were heard which indicated that short cuts in procedure would be necessary if anything was to be enacted this session.

Independent interests headed by Jack Blalock of Marshall, Texas, voiced their opposition to the measure as the "opening wedge" of Federal control.

Senator Connally of Texas was represented as critical of provisions in both measures, seeing no reason for the setting up of an industry committee as proposed by Senator Cole, but preferring the Senator's $10,000 salary for board members over the $12,000 of the Cole and Disney bills.

As a means of speeding up consideration of the matter, it is possible that the House will act on the bill first, passing it and sending it to the Senate, where Senator Connally may move to have it substituted for the Thomas bill. If this is done, itw ill still be possible, by amendment, to include in the measure any of the differing provisions of the Senate bill which seem desirable.

By doing this, it was explained, it will be possible to eliminate the enactment of different bills by House and Senate and the subsequent necessity for appointment of a conference committee to put them together.

CANNOT STRIP GAS

If residue is blown into air rules court

Austin, Texas.—A decision was handed down Friday by a three-judge federal court denying Clymore Production Company the right to strip gas from wells in the Agua Dulce field and blow the residue into the air. The company had contended before that court sitting in New Orleans, that the wells were oil wells under provisions of the new gas waste statute, while the railroad commission contended they were gas wells and had treated them as such, ordering the plant to close down unless the residue gas was utilized for a useful purpose. The attorney general regarded the decision of extreme importance as "Settling every controversial issue that has heretofore existed in the South Texas field." The court, however, pointed out that all evidence was submitted by affidavit which prevented cross examination of experts who testified, and therefore declined to determine the issue of whether the wells were oil or gas wells under definitions of the statute. While this case was the first involving the validity of the statute to reach federal court, the court did not pass on the constitutionality of the law. It did point out, however, that orders of the commission were presumed to be valid until proven arbitrary or unreasonable, and that the burden of proof was on the plaintiff, Clymore Company, which failed to produce evidence sufficient to enjoin the order.

DANCIGER ENJOINED

Gas waste law violation alleged in state plea

Austin, Texas.—An injunction restraining the operation of the Danciger Oil & Refining Company's stripping plant in the Pledger field, Brazoria County, was issued Friday by Judge J. D. Moore in the 98th District Court. In a suit filed by the state, it was alleged that the company produced some 72,000,000 feet of gas daily from August 1 through August 7, inclusive.

The gas was stripped and the residue blown into the air.

The state asked penalties of $1000 per day for each day of operation. This suit, filed by Assistant Attorneys General Archie Gray and T. F. Morrow, constitutes the first action brought by the state in the courts seeking to enforce the provisions of the new gas waste law which became effective on August 1. Recently Danciger Oil & Refining Company sought an injunction in federal court seeking to continue operation under the statute. This injunction was denied.

Enjoining operation of this plant results in the closing of the last plant operating in South Texas which was stripping gas and blowing the residue into the air.

PIPE LINE PLAN

Suggest elimination of unnecessary systems

Austin, Texas.—At a hearing before the Texas Railroad Commission last week, Assistant Attorney General W. J. Holt announced that he would recommend to the commission that before building a new pipe line anywhere in the state, operators would be required to appear and show the "necessity and convenience" for the line. This plan was suggested as a means of eliminating the construction of lines in East Texas and other fields which might later be used for the movement of excess production.

Commission men testified that there were some 15 lines in East Texas whose ownership was unknown. Testimony introduced was to form the basis of an order requiring that these lines be excavated and stacked. Holt explained that when the commission found lines of which it had no record, suit would be filed if the owner could be found, alleging operation without a commission permit. The lines are to be removed only in the event that the owner cannot be discovered.

Commission agents requested that each pipe line file in the local district office of the commission a complete map of its lines, showing all connections to wells. This must be accurate as of date filed, and would be supplemented by small sketches showing wells added and dropped, which plats must be filed within 15 days after the change is made.

It was explained that whenever the commission found a line leading to a lease of which no record could be found in the office, a thorough investigation could then be made and the line removed.

Major company representatives present at the hearing agreed to this plan after it was discussed at length, although they objected to the expense which would result.

When Holt explained, however, that the entire plan was intended to prevent the operation of illegal lines, the majors agreed to furnish the data.

JAMES ATKINSON, of Edgar Tobin Aerial Surveys, San Antonio, Texas, was the featured speaker at the Houston Geological Society's regular weekly meeting August 8. He discussed the progress of aerial photography and development of photographically controlled ownership maps.

To Test Deep Well

IN CAYUGA FIELD; EXTEND LONG LAKE POOL LIMITS

WEEKLY STAFF REPORT

Palestine, Texas.—Production test of Tide Water Oil Company and Texas Seaboard Oil Company's N. N. Wills 21-A, first deep well in the Cayuga field, northwestern Anderson County, was scheduled for a showdown late last week, with a heavy yield of gas production considered virtually assured from the Trinity sand series between 8775 feet and 8867 feet. Total depth has been corrected to the latter figure. Commercial production of oil or gas will set in motion a deep drilling program on a number of favorable structures in the Woodbine sand belt of East and Central East Texas. In anticipation of a successful completion from the Trinity at Cayuga many operators and companies have been buying lease and royalty protection in areas likely to be given first consideration.

An experiment to determine whether the 700 sacks of cement used in landing seven-inch casing at 8750 feet was properly distributed and set behind the pipe was in progress late last week after drilling plugs. An electrical formation surveying instrument was used in making this unusual test. Considerable interest is centered upon this type of experimental work.

In view of the heavy gas pressures encountered by the Cayuga deep well, and the presence of a temperature of 225 degrees Fahrenheit at the bottom of the hole the owners planned to use every means of checking the condition of the casing cement job before venturing a test. The hole was drilled to its present depth with open hole below 4594 feet, where 9⅝-inch pipe was cemented in the Georgetown lime. The elevation of the derrick floor is 308 feet. The usual gas and oil production found in the field at an average subsea depth of 3765 feet in the Woodbine sand was passed up purposely to make the deep search for production.

Production in the Cayuga field was advanced one location north and into Henderson County the past week, while two important outposts to the northeast and south are preparing to start up. Joe A. Worsham et al's W. F. Wathen 3, NEc of 80-acre lease, gauged 125.9 barrels oil on 24-hour test through one-eighth-inch choke, with 240 pounds back pressure on tubing and 1080 pounds on casing. Production is from sand at 4073-75 feet, with sandy-shale to 4099 feet or 3772 feet sub-sea.

Roeser-Pendleton, Inc.'s Ware-Wilson 3, located 933 feet north of the company's first oil producer on the 430-acre lease, Everett Ritter Survey, located on the west edge of production in the Cayuga field, showed for a big gasser when tested in sand at 4065 feet, or 3761 feet sub-sea. It may be deepened, as the other two wells on the property scored oil production in drilling to a minus depth of 3771 feet.

Allowables in the Cayuga field, Anderson and Henderson Counties, will be based on acreage and potential beginning September 1, under provisions of an order issued by the Texas Railroad Commission on August 7. Fifty percent will be allocated on each factor, with a maximum of 20 acres assignable to any one well. Proration is on the straight per-well basis in the field at this time, and holders of large leases feared that continuance of this policy would result in dense drilling.

Long Lake Extension

Long Lake field, southwestern Anderson County, recorded its greatest oil extension the past week when Tide Water Oil Company and Texas Seaboard Oil Company's Shaw-Cern 1, near SEc 1, 216-acre lease, Daniel Parker Survey, gauged 70 barrels of 40 gravity oil through 3/32-inch choke on tubing after plugging back from salt water at 5377 feet, or 5077 feet sub-sea, to 5348 feet.

EIGHT DRY HOLES

Completed in East Texas field last week

Tyler, Texas.—Eight dry holes and two junked tests were included among the 89 completions credited to the East Texas field the past week. There were five failures and one junked hole the previous week. High percentage of dusters now putting in their appearance is due to extensive operations taking place around the edges of the structure, with an occassional extension well offering encouragement for operators to venture out into doubtful territory.

Four of the failures reported the past week were drilled in Upshur County. J. K. Wadley et al's E. L. Gillespie 3, south offset to a flowing oil producer on 189-acre lease, Wm. King Survey, was abandoned at 3748 feet after developing only small amount of oil with salt water in sand topped at 3723 feet. with an elevation of 385 feet. Sklar Oil Company's J. T. O'Byrne 1-B, located a short distance west of production in the Wm. King Survey, was abandoned at 3929 feet, or 3322 feet sub sea, having developed little oil with salt water. The latter is credited with having the highest surface elevation in the field. Bert Fields et al's J. W. Moore 1, SWc of 64-acre lease, John King Survey, tested salt water after setting casing on promising sand topped at 3670 feet, and was abandoned at sub sea depth of 3317 feet. Otto L. Morris et al's W. A. Reeves 1, I. Moody Survey, located about 1½ miles north of production, was abandoned at 3842 feet, having topped the Woodbine sand section at 3820 feet, or 3350 feet sub sea.

Thos. D. Humphrey's J. H. Thomas 9, NEc of 50-acre lease, H. F. Rogers Survey, northeastern Gregg County, was abandoned in lime at 3690 feet. However, Thomas 10, a south offset, was reported showing oil at 3623 feet. Sun Oil Company added its third failure in two weeks in completing A. G. Morton 15, Silas Baggett Survey, east Kilgore area, in Georgetown lime at 3557-60 feet. No sand was logged, although it offsets production. Humble Oil & Refining Company's M. A. Neal 6, T. H. Smith Survey, situated on east edge of Joiner area, encountered a similar condition in drilling to 3742 feet, where operations were halted. W. G. Turbeville and Smith's C. L. Graham-Marathon 2, one location west of their pumper on the 160-acre lease, Peter Tipps Survey, south Joiner area, was abandoned in salt water at 3668 feet, or 3319 feet sub sea.

EAST TEXAS

Completions

Company, Well and Location	Init. Prod. Bbls.	Depth
JOINER AREA—		
Arkansas F.O. Co., G. Ferguson 10 (73.8-ac)	9300	3656
British-American O.P. Co., Cooper-Mayfield 5 (45-ac)	9000	3646
M. L. Thompson 7 (64-ac)	8400	3642
Fair & Thompson, Wylie 5-A (26ac)	500	3625
W. H. Gant-Garvin & Wegener, J. Simmons 4 (52½-ac)	400	3606
Humble, A. D. Blackwell 45 (325.79-ac)	8800	3659
M. A. Neal 6 (54.67-ac)	*	3742
R.E.L. Silvey 50-A (458.97-ac)	7500	3773
J.H. & I.W. Wooley 28 (201.53-ac)	9000	3655
Hunt Prod. Co., Fair 20-C (211.4-ac)	7600	3626
Smith-Wilson 8-A (61.29-ac)	10,500	3715
Illinois Oil Co., Mayfield-Shell 38 (197.1-ac)	5500	3772
M. A. Kline & Florence Oil Co., J. Cole 1 (5.23-ac)	900	3827
Alex McCutchin et al, J. R. Irion 2-B (10-ac)	5600	3746
M. H. McMurrey, Tr., Turner 15 (83-ac)	5500	3845
Turner 19 (83-ac)	7500	3817
R. J. McMurrey et al, Roberson 6 (136-ac)	2500	3759
Mabee Cons. Corp., Maxwell 3-A (40-ac)	360	3625
Malernee & Bullock Oil Co., Alford 7 (26-ac)	750	3653
Marathon, Cross 77 (814.84-ac)	7800	3673
Joe Mills 8 (44.37-ac)	2000	3729
S. H. Moores 26 (193.8-ac)	7000	3721
J. F. Merrick Drl. Co., N. Cooper 6 (20-ac)	240	3603
H. B. Owenby Drl. Co., I. W. Wooley 1-A (5.62-ac)	150	3650
Pointer Oil Co., T. O. Wright 6 (9.7-ac)	2500	3655
Retsal Drl. Co., J. P. Maxwell 10 (34.93-ac)	240	3581
Sinclair Prairie, W. D. Kinney 66 (579.2-ac)	8500	3651
Stanolind, H. C. Maxwell 20-A (111.65-ac)	7000	3814
H. C. Maxwell 21-A (111.65-ac)	7000	3816
Sun, Pace 17-B (637.45-ac)	1500	3770

Company, Well and Location	Init. Prod. Bbls.	Depth
Texas Co., Kersh 21 (211-ac).....	2500	3617
Harry Trentman, Jr., Cole 1 (5-ac)..	9600	3843
Trippmead Oil Co., Thompson 4 (7.19-ac)	9000	3810
Turbeville & Smith, Graham-Marathon 2 (160-ac)	*	3668
KILGORE AREA—		
Arkansas F.O. Co., Brown 12 (100-ac)	9300	3597
E.C.R. Oil Co., Sherow 8 (108.57-ac)	350	3645
E. P. Halliburton, Lacy-Shell 8 (63.3-ac)	9700	3573
W. V. Hardin et al, Peterson 1 (104-ac)	600	3590
Peterson 2 (104-ac)	1500	3612
Hastings & Dodson, Florey 2-A (25-ac)	†	2000
Humble, Roberson 4 (57.05-ac).....	750	3685
Invincible Oil Co., Weiss 19 (81.27-ac)	11,000	3518
Jones-Doss Oil Co., Martin 6 (47-ac)	4500	3747
C. L. McMahon, Spear-Laird 14 (92¼-ac)	7500	3656
Mabee Cons. Corp., Cole-Shell 23 (120-ac)	12,000	3565
H. S. Moss, Waldon 3 (4-ac).....	8700	3550
Natural Pet. Co., Henderson 1 (42.7-ac)	6500	3585
Nat'l Sec. Oil Co., Knowles 4 (5.16-ac)	100	3594
Quad Corp., Duncan-Guernsey 7-A (40-ac)	9400	3674
Shell, Elder 29 (196.05-ac)	8800	3607
Southport Pet. Co., Kilgore School 2 (8.35-ac)	6500	3614
Sowell et al, Walker 1-B (3.49-ac)..	3600	3653
Sutton & Hawkins, D. Hilburn 5 (35-ac)	3000	3692
D. Hilburn 6 (35-ac)	3000	3699
D. Hilburn 7 (35-ac)	2800	3700
Sun, Morton 15 (336.24-ac)	*	3560
Weaver-Crim Corp., Laird 13 (82-ac)	6500	3595
Woodley Pet. Co., Ladd 8-A (50-ac)	11,000	3619
LONGVIEW AREA—		
Arkansas FO Co., Lathrop 11-C (101.2-ac)	7500	3592
Atlantic, Pritchard 16 (100½-ac) ..	10,000	3529
Empire, Lee 25 (187.18-ac)	9600	3569
L. J. Rogers 11 (70.43-ac).....	9500	3598
Bert Fields et al, Moore 1 (64-ac)..	*	3689
Godlin & Gaskill, Mackey 2-C (32½-ac)	5500	3710
Mackey 3-C (32½-ac)	7500	3669
Gus & Mike Glasscock, Bacle 3 (5.9-ac)	†	2383
Great Plains O&G Co., Anderson 5 (13-4/7-ac)	8000	3610
Humble, T. B. Harris 22 (175.18-ac)	5500	3581
W. W. Holland 28 (201.63-ac)....6500		3668
J. M. Smith 10 (90.3-ac).....	4500	3637
Humphrey et al, Thomas 9 (50-ac).	*	3690
Johnston & Burnham, Shelton 4 (31-ac)	750	3738
Lucey Pet. Co., McHaney-Loeb 10 (39.82-ac)	10,400	3542
Otto L. Morris et al, W. A. Reeves 1	*	3842
Salome-Cooper Drl. Co.-Sabinas Oil Corp., Collins 4-B (25-ac)	9200	3681
Selby O&G Co.-Lewis Prod. Co., Snavely 7-A (214½-ac)	4000	3595
Shell, H. Hampton 19 (169-ac)....7000		3715
C. C. Landers 19 (206¾-ac).....	3500	3663
Sinclair Prairie, J. R. Williams 22 (80.2-ac)	10,400	3545
Sklar Oil Co., O'Byrne 1-B.....	*	3929
Southland Drl. Co.-United E&W Oil Co., O'Byrne-Humble 36 (304-ac).	5500	3700
O'Byrne-Humble 37 (304-ac) 3600		3701
Willie Starr et al, fee 1-B (64¼-ac).	120	3665
Sun, S. C. Salter 2-A (20-ac)	500	3746
S. C. Salter 2-B (27-ac).....	500	3785
Texas Co., T. W. Lee 18 (210-ac)..7200		3568
Wadley et al, E. L. Gillespie 3 (190-ac)	*	3733
Yount-Lee, Stephens 7 (57.77-ac)...8400		3560
J. M. Tuttle 8 (49.71-ac)	8500	3620
ANDERSON COUNTY (Cayuga Field)—		
Roeser-Pendleton, Inc., Ware-Wilson 3 (460-ac)	¶75	4065
Ed. A. Showers & W. A. Moncrief, C. L. Loper 1 (21-ac).....	3000	4091
Stanolind, J. W. Barton 1 (99.12-ac).	2500	4098
J. W. Barton 2 (99.12-ac).....	2600	4095
HENDERSON COUNTY (Cayuga Field)—		
Joe A. Worsham et al, W. F. Wathen 3 (80-ac)	2500	4099
ANDERSON COUNTY (Long Lake Field)—		
Tide Wated & Texas Seaboard, Shaw-Cern 1 (1216-ac)	1500	5377
VAN ZANDT COUNTY (Van Field)—		
Pure Oil Co., A. D. Clark 4 (42-ac).	78	2978
RED RIVER COUNTY—		
Porter Newman, Tr., R. L. Gipson 1	*	3625
WOOD COUNTY—		
Roger Wolfe et al, C. M. Dickey 1.	*	4615

*Failures; †Junked; ¶Million cu. ft. gas.

Drilling Campaign

ASSURED BY COMPLETION OF TEN KEYSTONE-WALTON WELLS

NORTH & WEST TEXAS

WEEKLY STAFF REPORT

San Angelo, Texas.—The Keystone-Walton area, recent oil strike in north central Winkler County, has approximately 5000 acres proved for production now that seven of the original 10 wildcats started before the discovery of oil have reached the saturated dolomite lime horizon. Although lacking in prolific oil yield the seven wells are showng sufficient oil production to validate the short term lease contracts, which necessitated the unusual exploration program for an isolated area. Geological markers on the other three tests all drilling below the 2600-foot level, forcast probable oil wells also. Successful completion of the 10 original tests will necessitate the starting of 20 additional direct and diagonal offsets.

Temporary completion has been made by Gulf Production Company's Keystone 1, first oil producer in the area, with a natural flow of 274 barrels of oil and 13 barrels of drilling fluid at 3520 feet, or 578 feet sub-sea. It was drilled 1430 feet into the lime section. Keystone 2, three miles to the southeast, flowed 36 barrels of oil in four hours while cleaning out at 3688 feet with cable tools. This well was drilled to 3702 feet, or 751 feet sub-sea, and is 1412 feet in the lime section, changing from rotary to tools to cleanout. It was shot with 500 quarts of nitro in lime at 3200-3620 feet. Keystone 3 flows 30 barrels of oil and 20 barrels of drilling fluid with 8,000,000 feet of gas daily at 3363 feet, having tested the upper pay zone. Keystone 5, highest well on structure, showed for a 10-barrel well with a large gas yield at 3500 feet, or 548 feet sub-sea, and will be deepened. Keystone 4 and 6, located on the south end of production, are showing for oil producers at 3646 feet and 3575 feet, respectively.

Sid Richardson et al's J. B. Walton 1, northwest outpost, is flowing into pits at rate of 10 to 15 barrels hourly, averaging 50 percent oil, with considerable gas. It was drilled to 3602 feet, or 655 feet sub-sea. Rotary has been moved to drill Walton 2 as a north offset to the discovery oil well.

Unusual porosity of the lime section in this field results in the formation absorbing an excessive volume of drilling fluid, and the wells are slow in returning the water and mud when placed on production. High pressure gas production overlying and sandwiched in between the oil zones precluded the use of cable tools without repeated fishing jobs. The two operators could not risk such delays, owing to short term leases.

Rotary rig has been set up by Sid Richardson et al to drill a test about two miles north by west of the Keystone-Walton area on the B. F. Jenkins-Humble 160-acre lease, with location 440 feet out of the SEc of SE¼ Section 13, Block 77, PSL Survey. Humble Oil & Refining Company assigned this lease to Richardson et al, retaining 1/16 over-riding royalty, with stipulation that development be started this month. Richardson et al own leases on the bulk of the acreage in this area, including the three tracts offsetting the location.

Roy A. Westbrook, Fort Worth, has

WEST TEXAS

Completions

Company, Well and Location	Init. Prod. Bbls.	Depth
ANDREWS COUNTY (Parker Pool)—		
Honolulu Oil Corp.-Llano Oil Co., Parker 1-B	165	4804
BREWSTER COUNTY—		
S. G. Smith et al, Decie 1	*	1310
ECTOR COUNTY (North Cowden Field)—		
Landreth Prod. Corp., Blakeney 1-A,	637	4225
ECTOR COUNTY (Scharbauer-Goldsmith Field)—		
Landreth Prod. Corp., B. H. Blakeney 1-B	*	4300
FISHER COUNTY—		
Tide Water & Merry Bros.-Perini, W. E. Hittson 1	*	3709
HOWARD COUNTY—		
Conoco & Group 1 Oil Corp., Settles 15	*	3252
Int'l Pet. Corp., TP Land Trust 3	298	2905
Merrick & Lamb, A. M. Bell 2....	35	2834
Sinclair Prairie, G. M. Dodge 16..	372	2777
W. E. Production Co., H. N. Read 1	*	2842
JONES COUNTY—		
Geo. Callihan, Oyster & Rhodes, G. H. Higgs 1	40	1825
MITCHELL COUNTY—		
The Texas Co., I. W. Terry 1....	*	2941
PECOS COUNTY (Yates Field)—		
Marathon Oil Co., I. G. Yates 39-A	625	1155
Phillips Pet. Co., Monroe-Smith 4..	515	1360
PECOS COUNTY—		
Arthur Adams et al, J. S. Masterson 2	80	1420
Shell, University 4-D	*	1657
UPTON COUNTY—		
Gulf, J. T. McElroy 116	608	2920
Int'l Pet. Corp., McClintic 2-B....	293	3026
TP Coal & Oil Co., Lane 16-A....	519	2050
WARD COUNTY—		
A. Bradford et al, E. R. Allen-California 1	*	818
The California Co., B. D. Durgin 34	1926	2563
J. F. York 19	950	2520
Gulf, G. W. O'Brien 59	374	2789
Humble, Louis Richter 4	35	2563
Lindsay Drlg. Co.-Bolin et al, C. Wallis 1	240	2628
S. A. Thompson et al, W. D. Johnson 8-B	904	2535
WINKLER COUNTY (Keystone-Walton Field)—		
Gulf, Keystone 1	275	3520

*Failures; †Junked; ¶Million cu. ft. gas.

contracted to start operations immediately on one of the two 160-acre leases farmed out by Gulf Production Company in the Kermit area, Winkler County. The latter retained 1/16 overriding royalty, and all mineral rights below 3300 feet in assigning leases on the NE¼ Section 5, and SE¼ Section 7, Block B-5, PSL Survey.

Productive limits of the Sayre field, Winkler County, were advanced one location to the south when Mid-Continent Petroleum Corporation's J. F. Howe 2-B, SWc S½ SW¼ Section 12, Block 26, flowed 15 barrels hourly from sandy-lime section at 2795-2916 feet. The gas volume was rated at 3,000,000 feet daily. This field has been proved for four locations in width, and 1½ miles in length, with no dry holes nearby.

Mitchell County, site of the first commercial oil production in West Texas and more or less neglected in recent years, scored a semi-wildcat oil producer, a wildcat failure and a new exploratory test the past week. W. W. Gruber, Sawtelle et al's Z. Morrison 1, NWc Section 34, Block 29, T&P Ry. Survey, T-1-N, situated three miles northeast of Iatan and about two miles from nearest production, developed 1000 feet of oil in hole within two hours after drilling saturated lime at 2685-89 feet. It will drill through the lime section, then plug back and shoot with nitro, with fair prospects for a well. The Texas Company's I. W. Terry 1, Section 62, Block 29, W&NW Survey, was abandoned at 2941 feet. In the north central portion of the county, Lockhart & Company has made location for W. C. Berry 1, NEc NW¼ Section 80, Block 97, H&TC Ry. Survey, or about four miles northeast of production. However, Paul Teas et al's Ed. Strain-McMurray 1, NEc Section 82, developed a small amount of oil from 1700-foot pay in June, 1927, after plugging back from 3510 feet.

Outlook for commercial production for Gulf Production Company's M. B. McKnight 1, C SW SW Section 9, Block B-21, PSL Survey, Crane County wildcat, assumed a brighter aspect late last week when production increased to 46 barrels oil and 35 barrels water on 16-hour pumping gauge. It was previously bridged back from 3713 feet to 3649 feet and shot with 230 quarts of nitro in lime at 3540-3602 feet. Gulf Production Company's W. N. Waddell 10, C NW¼ Section 11, Block B-23, PSL Survey, situated in the north portion of the Waddell field, Crane County, gauged 50 barrels hourly through tubing from lime at 3525 feet, or 756 feet sub-sea, and rig has been moved to the west to drill Waddell 11 at C NE¼ Section 10. Magnolia Petroleum Company's Edwards 1, located a short distance to the northeast, failed to respond to treatment of lime at 3540 feet with 5000 gallons of acid solution under 650 pounds back pressure, and will be shot with nitro. It was plugged back from water at 3615 feet, or 837 feet sub-sea. Magnolia Petroleum Company is starting operations on Edwards 2, located in SWc of Section 2.

Sun Oil Company and Atlantic Oil Producing Company's O. B. Holt 1, SWc Section 5, Block 43, T&P Ry. Survey, T-1-N, situated about 2½ miles northwest of nearest production in the North Cowden field, Ector County,

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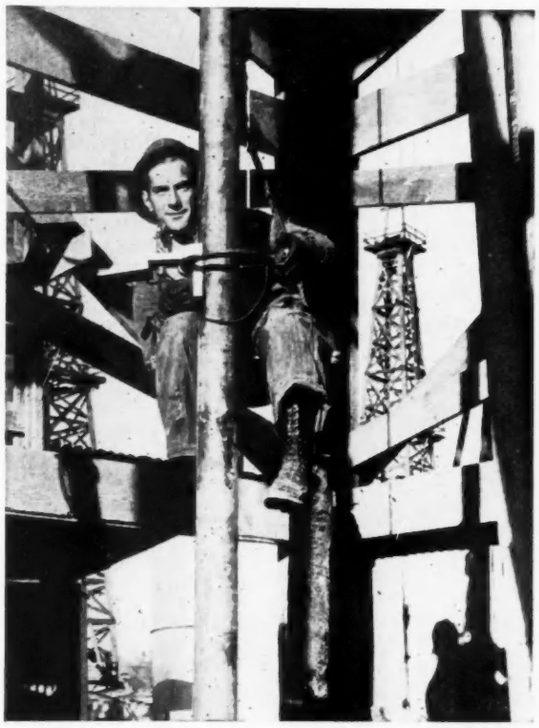

★

Derrick man puts on clamp and lines gun in on target . . . then takes instrument out, and pipe stand is lowered.

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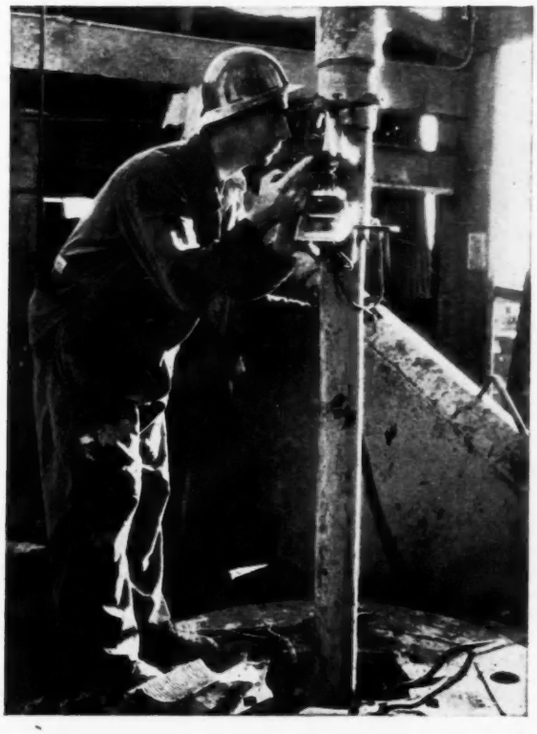
Floor man puts transit in same clamp which is lowered on pipe, and lines up on same target . . . thus learning the angle of pipe turn.



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failed to register production increase in deepening to 4144 feet. It was rated at 25 barrels daily at 4082 feet, a stray lime zone found about 150 feet above the projected producing zone.

Abell Brothers, Midland, Texas, and E. M. Wahlenmaier's R. O. Potts-Humble 1, proved up more territory for the Grand Falls district, Ward County, in developing a natural flow of 75 barrels daily from sandy-lime section at 2265-2400 feet. Location is on 120-acre lease farmed out by Humble Oil & Refining Company, and is in Section 28, Block B-29, PSL Survey. Pat Hill et al have contracted to drill a test a short distance to the southwest and in the west corner of Section 24. Gulf Production Company subleased the northwest 320 acres of its A. F. Bray lease, Section 14, Block 5, H&TC Ry. Survey, to Harry Adams Corporation, retaining an over-riding royalty and mineral rights below 3300 feet.

E. M. Wahlenmaier and associates are reported to have contracted to drill in Gaines County on acreage assigned by Humble Oil & Refining Company and others to the northwest of Seminole. Location has been tentatively made on the E. H. Jones land, Section 414, CCSD & RGNG Ry. Survey, Block "G". The town of Seminole centers on a pronounced geophysical high that has induced Humble Oil & Refining Company, Amerada Petroleum Corporation and others to pay fancy prices for leases within the townsite since the first of the year, and the drilling of a test in the near future is assured.

NORTH TEXAS

Completions

Company, Well and Location	Init. Prod. Bbls.	Depth
ARCHER COUNTY—		
Abercrombie et al, Abercrombie-Taylor 2, blk 12	*	1394
Bonner Co.-King Royalty Co., Abercrombie 5-B, blk 153	*	1206
L. T. Burns et al, F. Albers 10-A blk 117	25	1258
Cockburn et al, Andrews 9, sec 2437	25	1401
T. V. Carr 2, sec 2437	70	1394
Cullum et al, Falls-Ellis 35, blk 10	30	1156
Fain-McGaha Oil Corp., C. S. Arnold 42	50	1188
Florey Oil Co., F. Brazina 7, sec 2410	12	1445
Luther Hedrick et al, T. J. Allen 1, blk 18	*	1505
C. A. King et al, F. McAnally 1, blk 13	*	1464
Panhandle Ref. Co., Prideaux 8-F	*	364
Perkins-Cullum Oil Co., Falls 189, blk 34	100	1124
Pet. Producers Co., J. T. Richardson 14-E, blk 1	150	1244
Reno Oil Co., H. F. Wilmot 10	*	2863
White & Duncan, Webb 5-A, blk 9	*	707
BAYLOR COUNTY—		
Consol'd Oil Co.-Pet. Producers Co., Portwood 18-D, sec 1579	1000	1376
Portwood 19-D, sec 1579	850	1380
Ray & Staniforth, Portwood 3-C, sec 1574	400	1352
COOKE COUNTY—		
Harper & Knappenberger, Nat Piott 4	35	827
G. Milt Richardson et al, S. W. Fowler 1	*	1655
Ruwaldt & Couch, Andress 1-B	35	1428
Wright Smith et al, J. H. Otto 1, blk 5	30	875
M. T. Smith et al, Mrs. J. G. Jones 1	25	1731
The Texas Co., J. Muerer 2	44	742
JACK COUNTY—		
D. L. Wolfe et al, C. Carter 1, blk 7	*	509
HARDEMAN COUNTY—		
Lawrence S. Flannery, Williams 1	†	5022
THROCKMORTON COUNTY—		
Falls Prod. Co., M. K. Graham 11, sec 992	9	1836
WICHITA COUNTY—		
Bridwell Oil Co., Allen-Kemp 10, sec 28	25	1022
Coleman & Coppock, L. C. Denny 1	*	853
Horwitz & Oldom, D. E. Hooks 4	345	1657
W. B. Omohundro et al, D. E. Hooks 1	10	1210
D. E. Hooks 2	18	1222
D. E. Hooks 3	25	1220
D. E. Hooks 4	*	1792
WILBARGER COUNTY—		
Davis Oil Corp., L. Webb 2, sec 8.	*	2550
McAlester Fuel Oil Co., Waggoner Est 12-T, sec 35	160	1874
Waggoner Est 13-T, sec 35	80	1891
Solo Oil Co., Waggoner Est 2, sec 37	25	2079
YOUNG COUNTY—		
L. T. Burns et al, G. B. Hamilton 2, sec 1394	*	963
Cato Bros., G. B. Hamilton 6, sec 1393	60	926
G. B. Hamilton 2-B, sec 1393	13	935
FHE Oil Co., Jeffery 3-B, sec 41	35	660
T. L. Griffin et al, fee 1, sec 159	*	1081
L. G. Hawkins et al, J. M. Kirkland 9, sec 2249	100	684
Harry Hines et al, T. E. Gray 1, sec 189	*	1251
J. H. Kleiner et al, J. M. Kirkland 4, sec 2249	60	707
Nash-Windfohr Oil Corp., E. Atwell 1, sec 3407	312	2740
E. R. Riggs et al, B. H. Larimore 21, sec 2247	*	723
Sams & Myers, S. R. Jeffery 1, sec 52	*	876
S. H. Simmons et al, Daley 4	*	600
Solo Oil Co., O. Deitrich 4	40	1096

*Failures; †Junked; ¶Million cu. ft. gas.

CHALK HILL CHECK

Archer County test may plug back to Strawn sand

Wichita Falls, Texas.—Small show of oil encountered in hard sandy-lime at 3608-3611 feet by Magnolia Petroleum Company's Luke McCrory 1, SEc SW Wm. Walker Survey A-660, two miles west of the Chalk Hill field, Archer County, checks favorably with the single Strawn lime producer in the latter area. The McCrory test failed to produce in the Canyon logged at 2230-62 feet, and also lacked porosity in the lower Canyon near the 2850-foot level. The company made contract to drill to 3700 feet, and will plug back and test the Strawn section if deeper drilling fails to increase the oil yield.

S. H. Fagadau et al have moved in rotary to drill J. H. Turbeville 1, SE of T. P. Glass Survey A-141, near recent lower Canyon lime discovery well for Archer County drilled by Grace & Woods. L. T. Burns et al are preparing to drill a twin location to Weinzapfel 1, which recently set in motion an active lease and royalty play for eastern Archer County, when Canyon lime carrying excellent oil and gas showings was drilled with big bit at 1906-30 feet. Acreage donations called for a 3000-foot test, and for this reason operations were continued without trying to set casing and test for production with the orginal hole. Reno Oil Company's H. Wilmot 10-A, SEc Block 4, ATNCL Survey, failed to produce in the two Canyon zones, and was abandoned at 2863 feet.

The Texas Company's Les K. Johnson 9, western Foard County and on an inside location in the Crowell field, has cemented seven-inch pipe at 3507 feet after encountering oil and gas showings from the Canyon zone in drilling to 3537 feet.

Revised proration restrictions imposed upon North Texas operators so as to lower the output of the district to 56,000 barrels daily, or a cut of 2500 barrrels, put into effect July 22, permits prorated wells to produce only seven percent of their potential after deducting the marginal well allowance. Prior to the reduction wells were prorated on a basis of 20 percent. However, acid treated wells in Archer County are limited to a maximum potential rating of 300 barrels daily.

Having failed to make a commercial oil producer from the Canyon lime zone at 5633-53 feet, Alma Oil Company's Molllie Low 1, southeastern Childress County wildcat, is seeking a

TEXAS PANHANDLE

Completions

Company, Well and Location	Init. Prod. Bbls.	Depth
GRAY COUNTY—		
Conoco, Carrie Wright 11-A	322	2909
Danciger, B. F. Byrum 4	375	3280
Kewanee O&G Co., R. Arnold-Morgan 6	158	3295
R. E. Smith-Rest 13	298	3293
Mordyan Pet. Co., M. B. Davis 5	745	2805
Nabob O&G Co., J. S. Morse 4-A	*	2865
HUTCHINSON COUNTY—		
Gulf, H. C. Pitcher 1	305	3173
Gulf & Panhandle Ref. Co., Dial 53	31	2929
Harry Stekoll et al, Whittenburg-Plemmons 8-G	432	2956
WHEELER COUNTY—		
C&H Drl. Co., Binkley-Caine 1	¶10.6	2446
Helena O&G Co., Keller 6	1913	2457
Phillips, Binkley-Caine 1	¶16	2557
Skelly, D. E. Johnson 5	792	2487
Texas Co., W. B. Bush 4	379	2490
P. M. Keller 12	1355	2532

*Failures; †Junked; ¶Million cu. ft. gas.

WEST CENTRAL TEXAS

Completions

Company, Well and Location	Init. Prod. Bbls.	Depth
BROWN COUNTY—		
A. C. Evans et al, Garms 1	*	943
H. F. Jones et al, Locker 1	*	945
CALLAHAN COUNTY—		
J. E. Henson et al, Cutbirth 1	*	733
Humble, R. D. Williams 1	18	950
Shuman Synd., I. N. Jackson 1	100	944
Ungren & Frazier, I. N. Jackson 5-B	10	1215
COLEMAN COUNTY—		
B. S. Boysen & J. E. Whiteside, J. D. Holt 1	*	1369
Eppenauer Drl. Co., Shields 3	125	1890
EASTLAND COUNTY—		
Cohen et al, J. L. Turner 6	25	1296
Wm. H. Earle et al, J. M. Scott 1	*	3081
Hickok Prod. & Dev. Co., Bardwell 1	15	3891
Lone Star, Hoffer-Groves 1	*	3812
N. A. Moore et al, J. W. Carter 3	60	1592
SHACKELFORD COUNTY—		
Albany Oil Co., H. Pardue, Davis 3	75	1591
Banner & Elmore, Nail 1	*	1538
Geo. Callihan et al, G. R. Davis 1	22	1640
Choate & McCamey, Simpson-Beams 1	20	1550
W. Douglas et al, W. D. Baker 1	*	1716
Fortex Oil Corp., W. P. Newell 1	*	1448
Hoffman & Page Co., Morris-Buie 5	185	1596
Iron Mt. Oil Co., Jim Cottle 1	*	2080
C. J. Kleiner et al, W. D. Baker 1	10	1668
Reclamation Oil Co., Davis 1	*	1840
Reliance Oil & Roy. Co., Davis 7	20	1641
W. N. Sanders 1	*	517
Roeser-Pendleton, Inc., Conoco, Cook 57-A, sec 61	50	1277
Cook 58-A, sec. 61	100	1281
Cook 15-A, sec. 88	*	1480
Roeser-Pendleton-Humble, Morris Buie 24, sec. 201	*	1660
St. Marys O. & G. Co., Davis 6	15	1644
Tannehill Oil Co., J. B. Mathews 23	*	1250
Texas Cons'ld Oil Co., J. W. Erharat 3	20	770
Worth Pet. Co., A. A. Clark 1A	*	767
STEPHENS COUNTY—		
D. S. Hood et al, Hudspeth 1	*	1170

*Failures; †Junked; ¶Million cu. ft. gas.

lower producing zone, and on last report was drilling below 6100 feet. The Hardeman County wildcat of Lawrence S. Flannery, Inc., on the J. M. Williams tract, about 1½ miles south of Quanah, junked hole at 5022 feet. The rig has been dismantled.

BORGER EXTENSION

To northeast is made by 400-barrel well

Amarillo.—Extension of the Borger district, Hutchinson County, more than one mile to the northeast was attained by Skelly Oil Company's B. F. Jameson 1, SWc Section 12, Block M-21, T. C. Ry. Survey, swabbing at rate of 400 barrels daily after shot of 520 quarts of nitro in dolomite lime at 2810-2868 feet. This new production trend was outlined last March when Joe Murphy et al's E. E. Watkins 1-B, Section 10, responded to a shot in lime at 2678-2746 feet after plugging back from 2786 feet with a flow of 50 barrels oil and 2,000,000 feet gas daily.

The Valley Osage Oil Company, Tulsa, is reported to have acquired lease on 55 acres offsetting Skelly Oil Company's Jameson tract, paying $200 per acre cash, plus an oil payment, with obligation to drill two wells.

Small show of oil from dolomite lime was encountered at 3518-25 feet by Rogers et al's T. Timberlake 1, NWc NE NW Section 86, Block 13, H&GN Ry. Survey, Wheeler County. It is several miles northeast of nearest production, and failed to make a producer from the 2500-foot granite wash zone. The surface elevation is 2136 feet.

An order providing 24-hour potential tests for new wells in the Texas Panhandle was issued on August 6 by the Texas Railroad Commission and became effective immediately. Wells in this area have been subjected to a five-day potential test for several years, but recently operators have requested that this time be materially reduced. The order provides also that wells shot or treated with acid shall be permitted to produce on the basis of the test made immediately after the well has been worked over. However, at the end of 60 days a second test is required on which future allowables will be based.

HUMBLE MOVES

Midland, Texas.—Removal of Humble Oil & Refining Company's production headquarters for West Texas and New Mexico from McCamey to Midland will materialize shortly as result of business men in the latter oil center having agreed to bear the expense of moving about 27 houses, containing from four to six rooms, from McCamey in order that the employes may be assured of adequate accommodations. Midland's population has registered a steady growth for more than a year, and the demand for residences has greatly exceeded the supply because of nearly all the active companies in the Permian Basin operating out of the city.

TEXAS PERMITS DROP

Austin, Texas.—A decline in drilling permits approved by the Texas Railroad Commission last week can be traced in part to the suspension of approval of applications for permits which are exceptions to the standard spacing regulations. This policy was inaugurated on August 3.

Only 190 permits were approved, far less than the average and 34 below the number granted the week before.

Permits for 64 new wells were granted to East Texas operators. There were 28 in Gregg County, 28 in Rusk County, four in Upshur County, three in Smith County and one in Cherokee County.

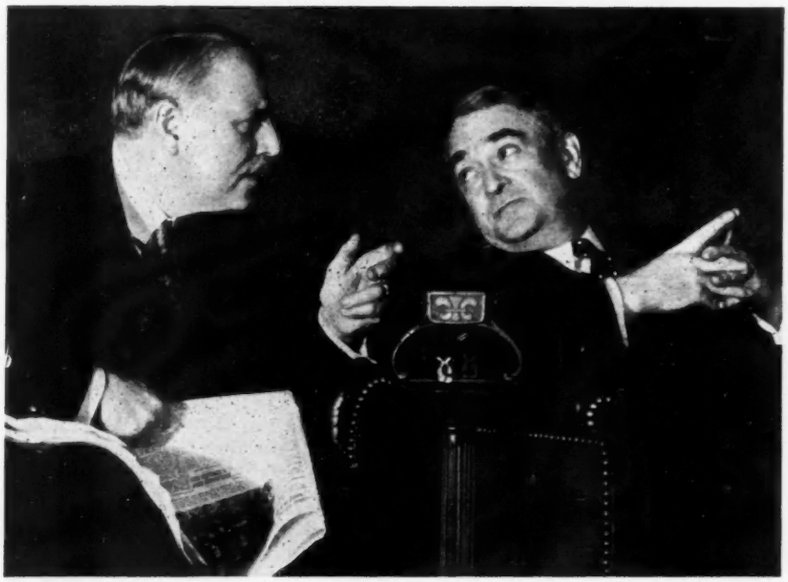
Southwest Texas operators listed 44 new locations with 10 in Bee County. There were permits for 24 new wells filed by Gulf Coast operators.

North Texas listed 17 new permits, and 11 were approved in East Central Texas.

West Texas reported 20 new locations, and there were 10 from the Panhandle.

While the commission has announced that no more permits for exceptions would be signed until the Supreme Court, meeting in October, passes on the motion for rehearing in the Brown case, it is possible that the policy may be changed.

The commission has requested the Attorney General to furnish an opinion on the legality of this move, and should this opinion be adverse, the Commission may proceed with granting permits as usual.



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Baldwin Extended

NEW SAND SHOWING OIL IN NUECES COUNTY FIELD

WEEKLY STAFF REPORT

San Antonio.—Magnolia Petroleum Company apparently has opened a new sand and extended the Baldwin field, Nueces County with Mattie Lou Sanders 1. August 9, the well was swabbing wash water and showing some oil and gas. It had not started flowing late in the day, but showed sufficiently to indicate a commercial producer from sand at 4060-66 feet. On a 15-minute drill stem test, the well showed 100 feet of 25 gravity pipe line oil in 15 minutes.

The well is located 330 feet from the south line and 990 feet from the east line of 110-acre tract in the BS&F Survey No. 165, and 1980 feet from the same company's discovery well.

This is the second well to be drilled by the Magnolia Petroleum Company on the Baldwin structure, the first well being J. C. (Bobby) Baldwin 1, which was completed July 9, for an initial production of 18 barrels of 25.8 gravity oil per hour through ¼-inch choke from sand at 3874-79 feet. The well showed a low pressure and several days ago was placed on pump. It gauged 168 barrels on pump, but reduced to 150 barrels per day, its allowable.

The entire Baldwin-Saxet district has come into a heavy development campaign during the last several weeks. Late in the week there were 16 active operations in the field with seven locations made to be started upon the completion of the present tests. Additional offsets are being required as a result of the development.

Shell Petroleum Corporation entered the field with three new locations to be drilled immediately. They include one on the Isensee and two on the Flato tracts.

One Saxet Completion

Houston Oil Company completed the only producer in the Saxet field during the week. Rand Morgan 4, flowed at the rate of 348 barrels per day on 5/16-inch choke, showing tubing pressure of 260 pounds and casing pressure of 600 pounds, depth being 4874 feet, with casing set at 4686 feet. The company's Morgan 3, also in the 4800-foot sand, completed sometime ago, was regauged by Railroad Commission engineers, the well showing a potential of 637.36 barrels through 5/16-inch choke on tubing. It showed casing pressure of 1200 pounds and tubing pressure of 800 pounds. All wells are being gauged through 5/16-inch choke for a period of six hours to establish potential. Allowable is based on units and potential flow, top being 150 barrels per well.

In the area between the Saxet and Baldwin fields, considerable play is under way. It is the contention of some that both fields will ultimately be connected. About ¾ mile south of the Saxet field and in trend, Texon Royalty Company is drilling at 3555 feet in Vance 1. The well showed gas in several drill stem tests between 3124 and 3171 feet, all showing sufficient to make a commercial producer.

Southwest of the Magnolia Petroleum Company production, about two miles, Lacy et al's Lewis 1 has been temporarily shut down at 4838 feet without encountering anything encouraging.

New Deep Greta Sand

A new deep sand was established definitely in the Greta field of Refugio County last week through the completion of Hewitt & Daugherty's M. F. Lambert 19, flowing 40 barrels of 33 gravity oil per hour through 3/16-inch choke on tubing. The well is showing 960 pounds working pressure. There is no pressure on the casing as tubing has been set on a seal.

The well is in sand at 6254-62 feet, bottomed at 6263 feet, one foot in shale. It attempted completion several weeks ago, but blew out from a leak in the upper portion of the casing. Cementing through perforations failed to hold, then 1200 feet of 5-3/16-inch pipe was run to 1200 feet and set on a seal.

The well is located 466 feet south of the center of the north line of Block 21, C. A. Hardwick Survey, in the extreme south end of the Greta field.

This completion marks the establishment of the fourth oil producing horizon in the field, the others being at 3500 feet, 4400 feet and 5900 feet. The new well is considered to be on a separate structure from the 5900-foot area and may lead to the development of a rather interesting development. There has been little drilling to deeper levels in the district, except for several wells on the flanks, which failed to make producers in the upper sands.

Quintana Petroleum Corporation and Humble Oil & Refining Company continue to increase its holdings as well as to expand its producing property in the Tomoconnor trend, which flanks the Greta field on the east. They recently made a deal with the O'Connor family for 372 acres out of the G. W. Maine and the Carr and Connell Surveys, Abstract 114, just northwest of production and towards the Greta field. This adjoins purchases made recently from the Heard family. About five miles farther north, these companies have taken a joint shooting option for six months on the Home Ranch, the deal involving approximately 15,000 acres.

Quintana et al's Tom O'Connor 16-A, has been completed for 68 barrels per hour through ⅜-inch choke, showing a tubing pressure of 1050 pounds and casing pressure of 1350 pounds. The total depth of 5881 feet. O'Connor 15-A, deep test in the same field, is making hole below 7350 feet.

Two Plymouth Completions

Two more producers have been completed in the Plymouth field of San Patricio County, one each by Heep Oil Corporation and Plymouth Oil Company.

Heep Oil Corporation's Welder 3-E, is good for 12 barrels per hour through 3/16-inch choke from sand at 5635-46 feet, showing a casing pressure of 960 pounds. Plymouth Oil Company's Welder 8-C, is flowing eight barrels per hour through 3/16-inch choke showing 300 pounds tubing pressure and 500 pounds casing pressure, the production being obtained from 5618-24 feet.

West of the field, Benson & Jones' Welder 1, Section 38, is drilling at 5865 feet, without making a producer in the upper sands. It now looks as though the southwest side of the field is going to be rapidly defined. This is the second test which failed to produce in either the 5500 or 5600-foot sand.

Plymouth Oil Company's Welder 9-C topped the sand section at 5594 feet and is preparing a drill stem test at 5640 feet. Welder 10-C is drilling below 4425 feet. Welder 11-C, 12-C and 13-C are just starting. Welder 13-C is the most northerly well in the field being one location west and one location north of 3-C.

The Texas Railroad Commission has issued an order effective on August 7, providing for 20-acre spacing in the new Plymouth field. This will allow the drilling of wells 466 feet from lease lines and 933 feet apart. The order also requires that 1200 feet of surface casing be set. At a hearing on this field Magnolia Petroleum Company had requested 10-acre spacing since the sands are lenticular.

Port Lavaca Well

Halliburton Oil Production Company's D. Burton 3, M. Sanchez Survey, in the Port Lavaca field of Calhoun County, has been completed for 30 barrels per hour through 3/16-inch choke at a total depth of 6248 feet. It showed oil and gas from 6186 feet to the total depth, production being taken from 6226-46 feet. The well has a pressure of 1000 pounds on tubing and 1300 pounds on casing.

The Texas Company's Shofner 1, south offset to the discovery well is a small gasser spraying about 12 barrels of oil per day at a plug back depth of 6248 feet. It went to 6262 feet, plugged back and drilled to 6248 feet in sidetracked hole.

PETTUS SAND SHOW

San Antonio.—J. O. Whittington et al's Little 2, two miles west of Dinero in Live Oak County, August 9, was making a drill stem test of five feet of Pettus sand, cored at 4977-84 feet, which carried a good odor of oil. The well may lead to the opening of the fourth pool in the immediate vicinity of Dinero.

The well is located 2640 feet from the southwest line and 1650 feet from the southeast line of the M. M. Shipp Survey, and is slightly more than a mile north of

the McNeill field, producing from the Hockleyensis sand around 4300 feet.

Little 1, abandoned several months ago, is located a short distance to the southwest of this well. It had a series of showings in the Hockleyensis, Pettus, and Yeagua sands, none of which were sufficient to make a producer. Little 1 has an elevation of 270 feet, derrick floor, and topped the Pettus and at 4987 feet. Little 2 has an elevation of 313 feet, derrick floor, and topped the Pettus sand at 4977 feet, making it 53 feet higher than the first well.

LARGEST COMPLETION
In Coleto Creek and good Pettus area wells found

San Antonio.—American Liberty Oil Company has completed the largest well to date in the Coleto Creek of Victoria County, August Gaugler 1, a deepening job, flowed 586 barrels the first 12 hours through a 7/64-inch choke, showing tubing pressure of 400 pounds and casing pressure of 750 pounds. It is at 2869 feet, producing from 14 feet of sand. The sand was topped at 2838 feet, but the upper portion cased off due to the excessive amount of gas. The well was deepened from 2363 feet, where it was completed several months ago as a gasser. The well has been pinched to about 2.5 barrels per hour through 3/64-inch choke.

In the Placedo field, high gas pressure is hindering completions in the 4700-foot horizon. Several wells have started off as excellent producers, but turned into gassers. Barnsdall Oil Company et al's Dr. E. G. Gray, southwest side of the field, was completed at 4744-53 feet, flowing 60 barrels of oil in 22 hours through ¼-inch choke. It later went to gas and is at its best showing only a very light spray. Tubing pressure is 500 pounds and casing pressure 1200 pounds.

Magnolia Petroleum Company's Henderson & Pickering 1, which drilled to 6394 feet, plugged back to 4794 feet and perforated casing, the result being a gasser with 1210 pounds working pressure on tubing through 3/16-inch choke, and casing pressure of 1410 pounds. It makes about 12 gallons of oil per day.

E. L. Smith Oil Company is still trying to complete Lala 1, 4771-80 feet, and Eastern States Petroleum Company's E. Williams 1 is bailing oil, mud and gas at 4736-48 feet. Gillespie and Superior Oil Company's Brandt 2 is drilling around 2000 feet, and Martez Oil Company's Mitchell 1 is preparing to drill ahead after cementing perforations at 5330-34 feet, where it made a gasser.

New Pettus Sand Wells

Pettus sand fields of Bee and Goliad Counties continue to provide new producers. Caeser, Dirks, West Tuleta, North Pettus and the new Hords Creek area contain considerable undrilled acreage, which should at least maintain the present drilling campaign for months to come.

North Pettus, dormant for months, has again become alive as a result of a short southeastern extension. Diamond Half Oil Company's O. R. Mudd 2 is in process of completion at the 3850-foot level, while Sun Oil Company's W. T. Scarborough 4 is drilling close to the sand. Begol Oil Corporation has spudded in Mrs. R. A. McKinney 7.

Just southeast of this field, Brown & Wheeler et al several days ago established Conroe sand production in the Hords Creek area in Jennie R. Kauffman 1, sand at 4433-38 feet. The well showed for an initial flow of better than 225 barrels per day through ⅛-inch choke, but has been pinched to about two barrels per hour through a 1/64-inch choke due to lack of storage. It is producing oil of 47.6 gravity. No new locations have been announced, but another well is expected to be commenced shortly.

Caeser field offered a couple of new completions. Commodore Oil Company's J. J. Grissom 1, jetted 60 barrels per day from 3031-35 feet, while Luling Oil & Gas Company's Rhumann 9-B flowed 300 barrels per day of 11/64-inch choke from 3050-59 feet. It showed a pressure on tubing of 100 pounds and on casing of 325 pounds.

In the Dirks field, Mills Bennett's C. W. Bassinger 3-B is down to the sand. Heyser, Heard & Walton's Young 4 is rated at 25 barrels per hour through ¼-inch choke at 3854 feet. Young 6 is the same sized well from 3887 feet. Young 7 is drilling below 3000 feet. Humble Oil & Refining Company's Schellenberger 2 is still a location. Sun Oil Company's Page 1 is completing at 3863-78 feet. The Texas Company's Young 4 made 25 barrels per hour through ¼-inch choke from 3915 feet. It showed tubing pressure of 275 pounds and casing pressure 315 pounds. Young 5 has been spudded.

Simms Oil Company's P. L. Campbell 1-B topped the sand at 3931 feet and is coring in. The well is in the West Tuleta field. Ray 2 (3) is drilling below 3861 feet. Magnolia Petroleum Company's Ray 2 is a completion at 3934-38, flowing 15 barrels per hour. Highland Oil Company has started P. L. Campbell 4.

G. M. Church's J. C. Woods 1, wildcat 3½ miles southeast of Beeville is drilling at 5310 feet. It showed possibilities of making a producer at 4832 feet, but attempts failed, hence it was drilled ahead.

Live Oak Wildcats

Mills Bennett's Walton & Shipp 1, Live Oak County wildcat about three miles north of the town of Dinero, is drilling below 5150 feet, headed to 5500 feet, its contract depth, before plugging back to a showing at 4711 feet. The well on August 2 showed 480 feet of high gravity oil, 60 feet of salt water and 190 pounds pressure through ⅜-inch top choke and ¼-inch bottom choke in ten minutes from sand at 4699-4711 feet.

This sand has not been definitely identified. It is called by some the regular Pettus horizon, but others contend that it is about 80 feet off the Pettus.

Casing has been hauled onto the ground and the test likely will be plugged back to just below the potential producing level. Casing will be gun perforated opposite the showing.

It is located 990 feet from the east line and 330 feet from the south line of 129-acre tract in the P. Salinas Survey No. 11.

Three miles to the south in the North Lucas field, Smith and Storey et al's Sparks 1 is in process of completion at 5203-13 feet in the Conroe sand. The well is flowing about 20 barrels of fluid per hour, largely wash water, through ½-inch choke, showing a tubing pressure of 150 pounds. It had built up no pressure on the casing. The well is located 990 feet west of the discovery well and looks like a much better producer than the first two completions in the field.

Hidalgo Active
WITH SAMFORDYCE GETTING NUMBER NEW PRODUCERS

San Antonio.—Samfordyce field added a number of new producers during the week, the most active period in several months from the completion standpoint. In addition, several important outpost wells have been started.

Cortez Oil Company's C. E. Smith 1-C, extreme southeastern edge of the field, finally has been completed. It drilled to 2944 feet, plugged back and perforated at 2750-52 and 2753-55 feet, the result being the allowable through ⅛-inch choke, showing tubing pressure of 675 pounds and casing pressure 1050 pounds.

Gem Oil Company's Seabury 2-B is perforating in sand at 2806-11 feet. K. D. Harrison and D. D. Oil Company's George 3 is drilling plugs at 2732-57 feet. Harrison, Davis & Bishop's Guerra 3 has been killed and is setting short string of casing after making excessive amount of gas at 2748-53 feet. It originally was completed blowing a small amount of oil through 3/32-inch choke and showing tubing pressure of 875 pounds and casing pressure of 1060 pounds.

Henshaw and Roberts' C. E. Smith 1, has been completed at 2742-47 feet for three barrels per hour through 3/32-inch choke and showing very light pressure. King Woods Oil Company's F. B. Guerra 6 is drilling plugs at 2765-66 feet. It is the second of a six-well campaign. W. F. Lacy's Seabury 1 is flowing two barrels per hour through ⅛-inch choke from 2761-64 feet, with a tubing pressure of 190 pounds.

Windsor Oil Company's J. M. Doss 3 is a two-barrel per hour well through ⅛-inch choke, showing tubing pressure of 125 pounds and casing pressure of 225 pounds. It is in sand at 2747-53 feet.

Wheelock and Collins continue to have trouble with Seabury 1, flowing an excessive amount of gas through perforations at 2774-79 feet. It is being re-worked by plugging the present perforations and re-perforating.

Mundy and Stevens have spudded in and set surface casing in F. Guerra 1, Tract 12, Porcion 41, located 4500 feet north of the eastern end of production.

This well is being drilled in an attempt to establish production on the northeastern side of the gas sector of the Samfordyce field. It is the contention that the oil flanks the gas area on both the northeast and southwest sides, the structure running in a northwest and southeast direction.

Another important outpost well is Henshaw and Rotherts Seabury 1, in the western side of Tract 256, Porcion 38, about 1250 feet west of production. It is over the line into Star County. Rig is being moved in.

Outpost Areas Active

Gulf States Oil Company's John C. Engleman 1, Lot 3, Block 70, Mastena Grant, which several days ago opened a new field eight miles northeast of Edinburg in Hidalgo County, was at last reports pinched to about 30 barrels of light oil and 12,000,000 cubic feet of gas per day through ⅛-inch choke and showing a working pressure of 1840 pounds.

Apparently the production is not coming from the 6685 to 6720-foot horizon as was supposed originally. During efforts to test the sand the drill stem is believed to have broken. Samples taken at 500-foot intervals in the drill stem by means of a small bailer showed that the fluid was saturated with light oil down to about 4000 feet, but below that point there was no sign of oil or gas. High pressures applied to the drill stem caused it to break and apparently the present gas and distillate production is coming from an open hole through a broken drill pipe. In addition to the 6650 to 6720-foot sands, the electrical log showed three shallower sands, one at about 3600 feet, the second at about 5200 feet and the third at about 6250 feet, and it is presumed that production is coming from one of these shallower sands.

The original well was drilled by Deering and Kayser to 6000 feet, and then turned to Union Sulphur Company, who deepened it to 7500 feet and then abandoned. Gulf State Oil Company then took over the well, and under the direction of Paul Kayser, reworked it with the results set forth above.

Union Sulphur Company has three active tests in its Mercedes field. American Rio Grande Land & Irrigation Company 1 is drilling plugs on casing set at 6962 feet, total depth 6965 feet. Four is drilling below 7000 feet. Five is down 1224 feet with 12½-inch surface casing set.

New Duval Field

AND BIG WEBB PRODUCERS FEATURE THE TWO COUNTIES

San Antonio. — Magnolia Petroleum Company's Duval County Ranch Company 1, southeast corner Section 100, may open the way to the establishment of another Government Wells sand field. It blew out August 8 after drilling two feet into sand to a depth of 2135 feet, and at last reports still was out of control. It is making about 25,000,000 feet of gas and a spray of oil.

The well is located about 1½ miles northwest of the Government Wells field proper and is not expected to extend that field, due to apparent closing of the Government Wells structure in that direction.

The test several days ago indicated a small well in a stray sand, of the Cole Section of the Jackson horizon at 1965-68 feet, drill stem test showing little oil and mud. Casing was set at 1962 feet, the completion being only a very small well. The well was carried ahead to the new level. When the bit hit the sand and made two additional feet of hole, the drill stem was being removed to put on the core barrel. While coming out of the hole, the well blew out.

The test has an elevation of 430 feet, derrick floor, giving the top of the sand a minus depth of 1705 feet, which would check about right to be the upper Government Wells sand.

Bridwell Oil Company added a little more acreage to the southern section of the Loma Novio field. Bishop Cattle Company 1, NE SW SE Section 76, is a producer at 2667-84 feet, but does not want to flow. It looks like about a 200-barrel producer when placed on pump.

Farther south, about four miles south of production, Harvey & Henderson are fishing for bailer in D. Ruiz 1, Section 125. The well is standing 1300 feet in oil at 2658-62 feet, and is expected to make about 75 barrels per day when completed on pump. It is possible that this well links into the Loma Novio field, but there is a difference of opinions.

Other than the above several wells, the majority of work in the Government Wells-Loma Novio area was routine, several wells being started and several more completed. While this structure is of rather large proportions, it will be slow to be developed. Lack of demand for this type of crude and control in large tracts by several major companies has cut operations to a minimum. In fact, this field is looked upon as an important reserve rather than an immediate source of production.

Big producers are featuring activity in the western extension of the Cole field, Webb County, the past week bringing several of the best wells thus far completed in the area.

J. P. Nash's Benavides 1, Block 184, Hale subdivision of the Arispe Grant, flowed 75 barrels per hour initial through open tubing from 2778-98 feet. This is the first of a series of tests to be drilled by this operator on recently acquired acreage. He is drilling on his second well.

The Texas Company's Benavides 1, Block 257, which was completed for 22 barrels per hour several days ago, increased its flow to 40 barrels per hour through ½-inch choke. The Texas Company is coring for the sand in Benavides 2, Block 288.

Ed Mimms et al's Benavides 2, completed several days ago for 15 barrels per hour flowing, marks the second good completion for these operators.

Magnolia Petroleum Company, discoverer of this extension, is active. S. Benavides 2-X is coring for the sand. Seacord-Benavides 8, Block 291, flowed 10 barrels per hour from 2798 feet. Across the line in Duval County, but in the same field, this company is drilling close to the 2700-foot sand in Brennan Benavides 11, Block 487, and has location for S. Benavides 9, Block 8, Section 174.

O. W. Killam is drilling A. M. Bruni 39, Block 50, Section 15, about one mile southwest of this production.

In the new Lopez field, G. G. Mortimer apparently has a good producer in M. Lopez 1, Section 72, south offset to Mills Bennett's M. Lopez 2. It is in sand at 2165-72 feet.

Carolina-Texas Oil and Gas Trust's Benavides 11, deep test in the Carolina-Texas field, is to be reworked in an effort to complete it as an oil well. Trinity Drillers, Inc., are preparing to move a rig over the hole, bottomed at 4996 feet. It is a gasser showing a slight spray of distillate from the Mount Selman formation.

Sun Oil Company is reported to have completed a deal for an option on the Rosa V. de Benavides ranch, constituting the Santa Tomas Grant. The transaction is said to carry a bonus of 14 cents plus a 10 cent rental per year for a 10-year period. The ranch consists of 53,138 acres.

EXTEND DARST CREEK

San Antonio.—J. E. Clark's W. B. Lay 1, J. K. Davis survey, just southwest of the Darst Creek field in Guadalupe County, is flowing about 75 barrels of oil per day by heads and expected to increase to about 250 to 300 barrels when placed on pump.

It is in broken Austin chalk at 2372-2446 feet. The well started off heading about two barrels per hour through the mud, but when cleaned, showed only enough pressure to slop over the casing. When tubing and rods were run to place it on pump, the agitation caused it to begin flowing.

SOUTH TEXAS

Completions

Company, Well and Location	Init. Prod. Bbls.	Depth
BASTROP COUNTY—		
Marts & Beavans, Leatherwood 1, 550 ft nel, 320 ft nwl of tr, W. McLanglin sur	*	3277
BEE COUNTY—		
Commodore Oil Co., J. J. Grissom 1, McEarly sur (Caeser)	60	3033
Fox-Heflin, Holzmark 1, R. Jones sur (Foley)	*	4142
Heyser, Heard & Walton, H. C. Young 4, F. P. Rawlins sur (Dirks)	750	3854
H. C. Young 6, C. A. Dugat sur (Dirks)	750	3887
Luling O&G Co., B. B. Ruhman 9-B, blk 40, Hodge sur (Caeser)	300	3059

Company, Well and Location	Init. Prod. Bbls.	Depth
Magnolia, G. A. Ray 2, W. B. Blanchard sur (W. Tuleta)	400	3938
Mid-Continent Crude Oil Co., A. J. Kimball 2, S. Winship sur (Grayburg)	*	3535
Texas, S. E. Young 4, G. Young sur (Dirks)	750	3915
CALHOUN COUNTY—		
Halliburton Oil Prod. Co., D. Burton 3, M. Sanchez sur (Port Lavaca)	1000	6248
Texas, Shofner 1, M. Sanchez sur (Port Lavaca) pb 6248	12	6262
DUVAL COUNTY—		
Benedum & Trees, G. B. Parr 1, 6600 ft nl, 3930 ft wl of tr in San Andres Gr	*	6169
Bridwell Oil Co., Brishop Cattle Co. 1, ne sw se sec 76 (Loma Novio)	200	2684
Highland Oil Co., Hubbard 1, sec 72	80	2690
Intrepid Oil Co., Parr Ranch 2, 2087 ft fr most easterly west line, 1650 ft sl, sec 115	*	5305
T. G. M. Drilling Co., Davidson 1, 330 ft e and 330 ft s of se cor sec 69, but in sec 90	*	3020
FRIO COUNTY—		
Amerada Petroleum Corp., Kothmann 1, (Pearsall)	*	4370
Midland Oil Co., S. A. Joint Stock Land Bank 1, 330 ft out of extreme e cor 60.8-ac tr, J. O. Woodward sur No. 2	*	4069
Shoemaker et al, M. Roach Est 1, C. Wentzel sur No. 139, owdd, former td 3748	*	4005
GOLIAD COUNTY—		
Brown & Wheeler, J. R. Kauffman 1, 1660 ft sel, 330 ft swl 300-ac tr, P. Trevino sur (Hords Creek)	500	4438
HIDALGO COUNTY—		
Cortez Oil Co., C. E. Smith 1-C, tr 3-B, por 41 (Samfordyce) pb & perf csg 2750-55	250	2944
Gulf States Oil Co., J. C. Engelman 1, 400 ft sl and wl lot 3, blk 70, Mastena gr, opens new field, owwo, did not deepen but pb 6658-5748	50	7508
Henshaw & Rotherts, C. E. Smith 1, tr 3-B, por 41 (Samfordyce)	300	2747
W. F. Lacy, Seabury 1, tr 256, por 38 (Samfordyce)	250	2764
Windsor Oil Co., J. M. Doss 3, tr 278, por 40 (Samfordyce)	250	2753
JIM WELLS COUNTY—		
Magnolia, A. A. Seeligson 6, V. Canale sur No. 218 (Premont)	*	7135
LEE COUNTY—		
McNeil Pet. Co., G. B. Batey 1, 4200 ft sel, 3700 ft swl Wm. Nichols sur	*	3367
NUECES COUNTY—		
Houston Oil Co., Rand Morgan 4, sec 7, Range 5 (Saxet)	400	4874
REFUGIO COUNTY—		
Houston Oil Co., Wilson Heard 11, Refugio Town Tracts (Refugio)	450	4942
Hewitt & Daugherty, M. F. Lambert 19, blk 21, Hardwick sur (Greta) opens new sand	1000	6263
Quintana Pet. Corp., Tom O'Connor 16-A, Swisher sur No. 4 (Tomoconnor)	2000	5881
Stanolind, J. F. Welder 4, J. T. McGrew sur (Greta) pb 2094 ft, perf 2073-79	¶5	6005
SAN PATRICIO COUNTY—		
Heep Oil Corp., E. H. Welder 3-E, sec 46, Welder sub (Plymouth)	500	5646
Welder 6-E, sec 46 (Plymouth)	*	lcn
Plymouth Oil Co., Welder 8-C, sec 48 (Plymouth)	350	5624
Welder 1-D, Portillo sur (Sinton) pb & perf 5427-31	¶10	6680
VICTORIA COUNTY—		
American Liberty Oil Co., A. Gaugler 1, R. Manchola gr (Coleto Creek) owdd, former td 2363	1500	2869
Crown Central Pet. Co., H. Schovajas 1, lot 15, Rupley sur (Placedo)	¶25	4775
Magnolia, Henderson & Pickering 1, lot 18, E. Benavides sur (Placedo) pb & perf 4794	¶20	6394
WEBB COUNTY—		
Mills Bennett, J. Lopez 3, sec 73 (Lopez)	*	3224
Magnolia, Seacord-Benavides 8, blk 291, Hale sub, Arispe gr (Cole)	300	2798
Ed Mims et al, S. Benavides 2, blk 252, Hale sub, Arispe gr (Cole)	400	2807
J. P. Nash, S. Benavides 1, blk 184, Hale sub, M. Arispe gr (Cole)	1800	2798
Texas, S. Benavides 1, blk 257, Hale sub, Arispe gr (Cole)	990	2761
WILLIAMSON COUNTY—		
J. W. Gabehardt et al, Lawrence 1, B. Miller sur (Chapman)	*	2080
ZAPATA COUNTY—		
Texas, Measles 73, Cerrito Blanco Escobas)	*	1223

*Failures; †Junked; ¶Million cu. ft. gas.

Anahuac Active

NEW TESTS BEING STARTED NEAR RECENT EXTENSION

GULF COAST

WEEKLY STAFF REPORT

Houston.—The most interesting section on the Texas Gulf Coast is the Anahuac area, Chambers County, where Glenn H. McCarthy and R. A. Mason completed R. M. White 1 sometime ago to extend the producing limits of the field three miles to the north. During the past week a production test was made on the extension well, and in 18 hours it flowed 580 barrels through a quarter-inch choke with 2150 pounds on the casing and 2350 pounds on the tubing. The gas/oil ratio is reported to be 518 to one. The operator's are rigging up on R. M. White 3, 933 feet west of the extension test and 466 feet north of the south line of the lease.

An important northwest extension test was announced at the close of the week in the Anahuac field when Johnson & Anderson made location for a well in the southeast corner of the north 400 acres of the McGhee Survey. The foot measurements were not available at the end of the week.

Gulf Production Company has announced location for W. T. Knowles 1, northeast offset to the R. M. White 1. It is 467 feet east of the west line of Section 48 and 400 feet north of a direct offset to R. M. White 1 in the H. & T. C. Survey Section 48. Texas Gulf Producing Company & C. B. Bunte's Simon 1, four and one half miles northeast of R. M. White 1, was building roadway and moving in materials at the end of the week. Sun Oil Company was preparing to spud in on R. M. White 1, south offset to the extension test.

Over $200,000 has been spent in the area in the past week or two for royalty and acreage, with several additional hundred thousands dollars since the completion of the extension test. Lease brokers are buying any part of an acre in this area. One party paid $14,000 for a 37/640ths interest in a west half of a section during the past week.

In the Anahuac field, Humble Oil & Refining Company completed A. Middleton 4, H. & T. C. Survey 58, being 2700 feet north of the discovery well and approximately 9100 feet south of R. M. White 1, for 743 barrels per day from 7090 feet. The flow was through a quarter-inch choke with 1120 pounds on the tubing and 1200 pounds on the casing.

Humble Oil & Refining Company has made location for A. Middleton 5, being an east offset to Middleton 4. It is located 1339 feet from the north line and 466 feet from the east line of H. & T. C. Survey Section 58.

Humble Oil & Refining Company has made location for a south offset to Engles 1. Broussard 1-B is located 466 feet out of the northwest corner of a 640-acre tract in H. & T. C. Survey, Section 53. It is 933 feet south of Engle 1.

Across Galveston Bay, in the Dickinson field, Galveston County, Humble Oil & Refining Company completed the second well in the deep sand for the field. Maco Stewart A-2, was finaled at 9100 feet after plugging from 8510 to 9100 feet. The well flowed 70 barrels of high gravity oil through a quarter-inch choke the first 14 hours.

The operators have made location for J. F. Magale 1 in the A. Edwards Survey, being 500 feet southwest at right angles to project center line of roadway along north line block 99, San Leon Farm Home tract, 345 feet northwest at right angles to east line of Lot 1, Block 99, San Leon Farm Home tract, 213 feet from east line of J. G. Magale 346.46-acre tract.

In the South Houston field, Harris County, Stanolind Oil & Gas Company's First National Bank 1, was drilling 4322 feet at the end of the week and as compared to the discovery well on the geological markers the well is running lower and made the field look disappointing with the discovery well failing to make a producer after plugging back to 4680 feet. The operators have four additional locations made in the field and it is doubtful if the wells will be drilled until the indicated discovery well proves for commercial production.

Spacing of wells in the center of 16-acre units in the new South Houston field, Harris County, is provided in an order of the Texas Railroad Commission issued last week. The order is effective as of August 6.

For the first time in the history of spacing regulation, the commission has recognized a city ordinance setting up drilling districts and regulating spacing within the townsite.

The South Houston city council passed an ordinance permitting only one well to each four city blocks, and the commission order provides that within the townsite "wells should be placed as nearly in the center of the established drilling districts as possible . . ." The city ordinance, which is incorporated in the commission order, designates the various drilling districts within the townsite.

Since the commission has adopted for the area outside the city limits the same requirements for spacing as the city ordinance specifies, uniform drilling throughout the field should result. The order provides that in the event

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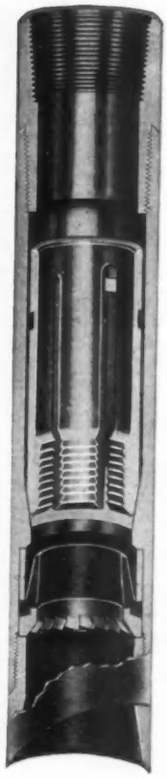

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the city ordinance is set aside, the commission regulations for spacing outside the city limits shall be applied to the entire field.

HARDIN HAS WATER

Houston. — Jack Frazier's Lynott Buffon 2, the discovery well for the new Hardin field, J. Robeson Survey, Liberty County, was making eight percent salt water at the close of the week and the operators had constructed a special treating plant which was connected to the well to treat the oil and salt water. The last gauge taken on the well was 441 barrels in 38 hours. The well was flowing through a quarter-inch choke with 1600 pounds on the casing and 600 pounds on the tubing.

The oil is now being run through the Magnolia Petroleum Company's four-inch line, which ties in two miles from the well to the main trunk line which runs to Beaumont, Texas. Magnolia Petroleum Company has posted 93 cents for Hardin crude.

TEXAS GULF COAST

Completions

Company, Well and Location	Init. Prod. Bbls.	Depth
ANAHUAC—		
Humble, A. Middleton 4	743	7090
BARBERS HILL—		
McAlbert Oil Co., Higgins 2 (wo)	161	5123
Sun, Wilburn 14	482	5522
Texas Co., Wilburn 6 (wo)	349	4795
Wilburn 8 (wo)	978	5180
CLAY CREEK—		
Sun, Janner 15	180	1521
CONROE—		
Strake Pet. Co., Krohn 16	*	5141
DICKINSON—		
Humble, Maco Stewart A-2	120	9100
FANNETT—		
Gulf, G. W. Junker 5	380	5670
HASTINGS—		
Mid-Tex Oil Co., E. G. Flint 1	*	lcn.
HULL—		
Empire Gas & Fuel Co., Barngrover 30	26	3998
Flynn Oil Co., Able 3 (wo)	7	2421
Republic Prod. Co., Dolbear 44 (wo)	*	3001
Dolbear 99 (wc)	280	2629
Wilson Broach Oil Co., Barrow 2	174	4209
HUMBLE—		
E. M. Wilson, Brown 1	15	2314
Burt 1	266	1848
LIVINGSTON—		
Kettle & Gynosky, Kingsbury 1	*	4362
Owenby Drilling Co., Pratt 3	325	5160
Sun, Pratt 4	15	4252
Pratt 5	38	4245
LOUISE—		
Pure, Kountz 4	325	5160
MANVEL—		
Texas Co., J. Boff 3	354	5156
NORTH DAYTON—		
John Deering, Wilhite 1	*	5176
PIERCE JUNCTION—		
Harrison & Abercrombie, J. Ritter 5	672	4897
Navarro Oil Co., Cain A-3	100	6710
TOMBALL—		
Amerada-Stanolind, W. H. Doyel 2	¶3	5585
Humble, V. Faris 2	360	5556
Scherer 2 (wo)	408	5625
Shell, Theis 2	425	5592
ANGELINA COUNTY—		
Lee Tex Oil Co., A. H. Guissler 1, nw of Lay, B. J. Thompson sur.	5	2053
AUSTIN COUNTY—		
R. L. Wheelock et al, N. Harrigal 1, w of Bellville, B. Babbitt sur.	*	2700
HOUSTON COUNTY—		
Boone Brothers, Goodrum 1, nw of Weldon, Goodrum sur	*	2425
A. J. Mendize, Watson Heirs 1, Santos Coy League	*	2520
TRINITY COUNTY—		
Gulf, Trinity County Lbr. Co. 4, J. Hanley sur	*	3006

*Failures; †Junked; ¶Million cu. ft. gas.

Montgomery County

Around the Gholson Drilling Company's Parks 1, several new and interesting wildcat locations have been made. G. Smidth has made location for Delta Land & Timber Company 1, which is 2800 feet north and 1100 feet east of the southwest corner of William McBride Survey, Abstract 350. The well is two and a half miles west of Mid Tex Oil Company's Delta Land & Timber Company 1. Anderson and Gholson have made location for L. Trice 1, which is one mile southwest of Gholson's Parks 1, in the T. Goode Survey. W. O. Belnoski's Foster Lumber Company 1 is located in the center of block 97, 4200 feet from the southeast line and 3900 feet from the southwest line of William Starrock Survey.

Gulf Production Company abandoned its fourth well in this county during the past week. Trinity County Lumber Company 1 is located 4539 feet north and 330 feet east of the southwest corner of J. Hanley Survey on a 4080-acre tract. The well was completed as a dry hole at 3006 feet. The company has made location for Trinity County Lumber Company 5.

Boone Brothers' Goodrum 1, northwest of Weldon, Goodrum Survey, Houston County, was completed as a dry hole during the past week at 2425 feet. The operators had a showing in the Sparta and the Queen City formation. It was reported in Houston that the operators had 25 feet of saturated oil sand in this wildcat, but the operators fail to confirm this report.

In the Kittrell field, Boone Brothers' Trinity State Bank 5 is being placed on a pump. The field is now drilled up and there is one more location for Boone Brothers to drill in the area. Humble Oil & Refining Company has abandoned the area.

Lee Texas Oil Company's Guissler 1, northwest of Lay, J. Thompson Survey, Angelina County, is flowing through a quarter and a one-eighth-inch choke, making approximately 10 barrels of fluid daily along with 200,000 cubic feet of gas. The operators are reported to be promoting another test in the area.

Regal Oil Company's Harrison 1, Jesus De La Garza Survey, is preparing to make a drill stem test at a total depth of 936 feet. A showing of oil and gas was found from 828 to 936 feet.

Grimes County

E. M. Wallace and H. B. Jordan have made location for R. L. Henderson 1, southeast of Singleton, 341 feet each way out of the most northerly northeast corner of 48-acre tract in the B. B. B. & C. Survey. All other wildcats in this county are shut down at present.

Washington County

C. J. Lass et al have made location for a wildcat to be drilled in Washington County. The well will be known as T. Weinert 1 and is 1840 feet southwest of the east corner of

T. T. Borden Survey, thence 250 feet northwest at right angles. It is three and a half miles southeast of Burton.

R. L. Wheelock et al have abandoned N. Harrigal 1, after pulling the derrick in at 2700 feet. The operators have skidded west 60 feet and are preparing to start up on the second test. Harrigal 1 is located 330 feet out of the east corner of 78-acre tract approximately 2100 feet from the northwest line, 6300 feet from the northeast line of B. Babbitt Survey A-113, Austin County. It is two miles west of Bellville.

Houston.—Completions along the Texas Gulf Coast during the past seven-day period were large in number due to several workovers in the different fields. There were a total of 35 completions in the Texas sector of the Gulf Coast, and of that amount 25 were producing wells, including workovers with an initial production of 7188 barrels per day. There was one gas well in the Tomball field, Harris County, making 3,000,000 cubic feet of gas daily. The remaining nine completions were failures.

KLEBERG SHOWING

San Antonio.—Fidelity Exploration Syndicate's Paul O'Henry 1, Lot 2, Section 39, just southwest of the Kingsville field, Kleberg County, is showing for a producer in a sand at 2505-40 feet. The well drilled to a depth of 3010 feet, ran electric formation testing device, then plugged back to below the sand, setting casing on bottom. It will be gun perforated opposite the 2500-foot horizon for completion.

San Antonio.—Magnolia Petroleum Company finally has abandoned its deep test in the Premont field of Jim Wells County. It is A. A. Seeligson 6, which is bottomed at 7135 feet. The well encountered considerable heaving shale, causing the drill stem to stick.

SOUTH LOUISIANA

Completions

Company, Well and Location	Init. Prod. Bbls.	Depth
BOSCO—		
Superior, O. Beniot 2	*	lcn.
Kahn 2 (wo)	*	8733
Hebert 2	*	lcn.
P. O. Hernandez 8	535	8620
Iserginhausen 5	273	8709
La Blanc 2	202	8664
V. Prejean 3	429	8607
CAILLOU ISLAND—		
Texas Co., Caillou Isle 21	1883	4149
EAST HACKBERRY—		
Sutton Oil Co., Portie 1	*	3852
GILLIS—		
Union Sulphur Co., State 9	157	6760
State 11	400	6746
JENNINGS—		
Port City Oil Co., Jennings Haywood 13 (wo)	10	1726
LOCKPORT—		
Union Sulphur Co., Moss 6 (wo)	*	6897
ROANOKE—		
Shell, Kratzer 1-B	*	8828
Kratzer 3 (wo)	768	7807
SULPHUR—		
Union Sulphur Co., Fee 808	425	4836
Fee 812	500	3016
WHITE CASTLE—		
Shell, Adams 1	249	8919

*Failures; †Junked; ¶Million cu. ft. gas.

Iota Gas Strike

TO BE DEEPENED IN HOPE OF GETTING OIL PRODUCTION

Lake Charles.—Continental Oil Company's Theogen Ortigo 1, six miles northwest of Iota, Section 28-7s-2w, definitely established a new gas field for the Louisiana Gulf Coast with the possibilities of an oil field when the operators pulled tubing and screen to take another core to try and convert it into a commercial oil producer.

When the well was first brought in from 8308 feet it showed only gas. It was tested for 13 and half hours through a quarter-inch choke with 2700 pounds on the tubing and 2000 pounds on the casing. Connections from the well to the separator froze and blew up. The well was closed in with 3000 pounds on the casing.

After being closed for 15 hours the well was reopened and it blowed for two hours, making an estimated 25,000,000 cubic feet of gas through the tubing and 4,000,000 cubic feet through the casing with a pressure of 1450 pounds on the tubing and 2000 pounds on the casing.

During the 28 and half hours the well was opened it made an estimated 25 gallons of distillate, which tested 49 gravity at 100 degrees F.

The operators plan to pull the tubing and screen and deepen further into the oil sand. A bit is on bottom of the tubing and was used in lowering the tubing after the well came in and to get to bottom through seven feet of hard packed sand in the bottom of the hole. Some are of the opinion that the operators will have difficulty in pulling the screen and tubing due to the well showing inclinations of sanding up.

The gas sand was topped at 8277 feet and sand showing oil was found from 8299 to 8308 feet. Seven-inch casing was set at 8297 feet. The oil sands showed 40 ohms on an electrical logging device.

New Producing Sand

With the completion of this test it not only establishes a new gas and possibly an oil field, but it opens up a new producing sand for the Louisiana Gulf Coast. The well is producing from the Lower Marginulina-Frio sand which has never proven productive in the Louisiana Gulf heretofore. The operators are calling the sand the Lower Marginulina while other geologists are referring to it as the Frio formation.

This prospect was discovered in 1934 by seismograph reflection by Continental Oil Company and is reported to have found an anti-cline closed in structure, large in area. Geophysical activity has been very prominent in the area for the past two years with several of the major oil companies having worked the area with geophysical instruments and found a particular existance in the area but failed to locate the structure.

Continental Oil Company has constructed one 1000-barrel tank and two 500-barrel tanks to take care of the production if there is any. The well topped the Discorbis at 6700 feet, Heterostegina 6910 and the Marginulina at 7541 feet. The well was drilled by the Nicklos Drilling Company, Houston, Texas.

Gillis Field

In the Gillis field, Calcasieu Parish, Union Sulphur Company's State 9, has been completed for 158 barrels per day from 6760 feet. The well showed one percent basic sediment and water through a quarter-inch choke. The well was completed originally at 6755 feet and came in making gas with a spray of oil. Upon deepening to 6760 feet the operators converted the well into a nice producer.

The same operators State 11, was completed for 400 barrels per day from 6746 feet. The oil flow was through a quarter-inch choke with a 2000 pound working pressure. The oil sand was topped at 6738 feet and six and five eighths inch casing was set at 6736 feet.

Union Sulphur Company has made location for State 13. It is 1464 feet east and 2088 feet north of the southwest corner of Section 12-9s-8w.

English Bayou

In the English Bayou field, south of the Gillis field, Fohs Oil Company's Airhart 1, quarter mile west of Wasey 1, which was the best producer in the field, Section 14-9s-8w, was cutting and pulling a stuck drill stem at the close of the week in sand and boulders at 7967 feet. The same operators have made location for Castle 6. It is located 300 feet south and 700 feet east of the NWc of SW¼ SW¼ of Section 13-9s-8w.

South Lake Charles Prospect

Union Sulphur Company spudded in on Prairie Farm Land 1, south of Lake Charles, August 3, 1935, and at the end of the week was drilling in shale at 1122 feet. This prospect is a new prospect discovered on the Louisiana Gulf Coast this year by Union Sulphur Company with torsion balance instruments. It is reported that royalty is selling for over $200 per acre base in this area. Shell Petroleum Corporation worked in this area with geophysical instruments and are reported to have located a dome.

The Conroe trend along the Louisiana Gulf Coast is just about a thing of the past and at present is inactive with no leasing or geophysical work to warrant any excitement. It is reported one of the major lease holders along this trend was releasing all acreage when the rentals came due.

Two Deep Tests

IN ROANOKE FIELD ARE NOW BELOW 10,000 FEET

Lake Charles.—Two of the most important and widely watched wells on the Louisiana Gulf Coast at present are drilling in the Roanoke field, Jefferson Davis Parish. Shell Petroleum Corporation's Jarnigan 1, and Humble Oil & Refining Company's Thomas 1 are both drilling below 10,000 feet to be first field in the world to have two 10,000-foot tests drilling at the same time.

Both of the tests are reported to have had showings of oil and gas below 10,000 feet. It has not been determined how deep the wells will be drilled. If no mechanical difficulties occur the wells will probably be carried considerably deeper.

Humble Oil & Refining Company's Thomas 1, 2200 feet south and 2200 feet west of the northeast corner of the N2 of Section 11-9s-4w, was coring below 10,414 feet in shale at the close of the week, being the deepest well in the field. It had a showing of oil and gas at 10,365 feet. The operators cut a core at this depth and the well tried to blow out and a special drilling mud was used and brought the well under control.

Shell Petroleum Corporation's Jarnigan 1, 660 feet due east of the discovery well, 660 feet south and 300 feet east of the NWc of NE¼ of Section 12-9s-4w, was drilling below 10,317 feet in soft sand with an odor and faint cut of oil. The well had eight feet of sand showing oil at 10,300 feet.

Shell Petroleum Corporation's 1-B, each offset to Carter 1, was abandoned at 8828 feet during the past week and the same operators' Kratzer 3 was worked over and completed at 7807 feet for 768 barrels per day through a sixteen sixty-fourths-inch choke. The working pressure was 1100 pounds. The oil was 39 gravity.

Gueydan Field

Pure Oil Company's Alliance Trust 6, was preparing to drill plugs August 9 at 9545 feet to make a production test on the deepest well drilled in the field; 1521 feet of 3½-inch screen and liner was set on bottom of 3½-inch drill pipe with a 4½-inch bit set on bottom of the hole. The well has been trying to blow out for the past several days and will be watched closely to see if the well comes in as the deepest producer in the field and the second deepest producer on the Gulf Coast being second to The Texas Company's Bayou St. Denis 1, in the Bayou St. Denis field which is producing from 9572 feet.

Pure Oil Company just recently purchased acreage running through Magnolia Petroleum Company's 5000-acre block to the west of the town of Gueydan.

In the New Iberia field, Iberia Parish, Canal Oil Company's Bernard 4, was shut down in salt at the end of the week at 4066 feet after topping the formation at 3977 feet. Possible oil sands were found from 3241 to 3267 feet and from 3889 to 3932 feet. The first sand showed four ohms on an electrical logging device and the second sand showed seven ohms.

Superior Oil Producing Company's Duplantier Community 1, south of Lake Charles in Section 65-7s-1w, was running 9⅝-inch casing at 7741 feet in a side-tracked hole at the close of the week. It is not known if the operators intend to make a production test at this depth or not as information is being withheld on the test. The well has had showings of oil from 6000 feet to 7540 feet. At 7747 feet the operators started to sidetrack and then lost returns and the operators plugged back to 4400 feet and drilled out to 7741 feet and are now running casing. The new hole is at the same depth as the old hole where the operators were going to core. At 7270 feet the hole was off over 20 degrees vertical.

In the Bayou St. Denis field, The Texas Company's Rigolet Cooperative Fur Company 1, south of the discovery well, Section 19-17s-24e, was drilling sand at 8626 feet after having its fifth oil sand. The last oil sand was found from 8079 to 8105 feet. The well will be carried on down to 9572 feet where the discovery well was completed as a producer. The same operator's Bayou St. Denis 2 is now drilling in sand at 7103 feet without having any shows of oil. The discovery well is making approximately 1500 barrels per day.

A new wildcat was spudded in Plaquemines Parish during the past week. Lotex Exploration Company's Hero 1, is located 1166 feet north, three degrees, 11 minutes east of the most northerly southwest corner of Section 72-14s-24e. The well was spudded in July 31, 1935 and set 15½-inch casing at 190 feet.

Lake Charles.—The Bosco field, Acadia and St. Landry Parish again led the list of completions in the Louisiana Gulf Coast for the week ending August 9, 1935. The field yielded seven of the 18 completions in the area. Of the 18 completions 12 developed into oil producers with a daily yield of 5851 barrels. Six of the 18 completions were failures.

Bosco Has Water

TROUBLES AND ACTIVITY IS SLOWING UP IN FIELD

New Orleans.—The activity at Bosco in Acadia and St. Landry Parishes has quieted down considerably in the past few months. An unconfirmed report states seven Discorbis wells at Bosco were forced to be shut in due to encroachment of water. The upper producing sands seems to be effected and it appears this situation dangers the entire field.

It also is reported that the development program of the field, including the drilling of 150 wells, has been abandoned due to the above condition. All contractors have been notified that on the completion of the wells now drilling that no more contracts will be alloted until the condition is cleared up.

It is known that the daily production in Bosco field has fallen off from 21,000 barrels daily to 15,000 barrels. Five wells in the field have been temporarily shut down due to high gas/oil ratio and will remain shut down until the condition is so that the gas/oil ratio is adjusted.

The edge wells and the Discorbis wells in the field have always made a small amount of salt water. This salt water condition occurred when the wells were brought in. At present several wells in the field are being reworked.

At present there are six rigs in the field running and two of those rigs are on two wells which are being completed. Larcade 10 is being completed and Kahn 2 is being abandoned after showing water. During the past week operators completed seven wells in the field. Some of the completions were abandoned locations.

On the southwest flank of the Choctaw field, Iberville Parish, Zeni Oil Company has made location for Schwing 1, which is located in the center of Section 52-9s-11e. It was previously reported that the above company paid $10,000 for a half interest in a tract on the southwest flank of this dome. This parish is taking on new life in the last two months with two new prospects found by two of the major companies who contemplate drilling this year.

In the White Castle field, Iberville Parish, Shell Petroleum Corporation's Adams 1, which discovered a new producing horizon for the field, the previous week, is now showing about 16 percent salt water.

The well was completed from sands 8893 to 8903 feet in the Miocene formation and flowed at the rate of 21 barrels per hour of pipe line oil, 27.5 gravity, through a ¼-inch choke with 1050 pounds on the tubing and 1220 pounds on the casing, and then went dead. It was swabbed in again and showed 16 percent salt water with 320 pounds on the tubing and 720 pounds on the casing. A five sixteenths-inch choke was used.

Test Checks High

RODESSA'S SECOND TRY FOR OIL SAND DOPED AS GASSER

NORTH LOUISIANA

WEEKLY STAFF REPORT

Shreveport.—Haynes Production Company's Tyson 1, NW SE 24-23n-16w, 2½ miles east of the discovery oil well in the Rodessa field, Caddo Parish, was preparing to cement seven-inch casing last week at 5489 feet in oolitic lime, 9⅞-inch casing had been cemented at 2080 feet.

Tyson 1 checked 155.07 feet higher on top of the anhydrite in the lime horizon than did the discovery oil well in SE SE 21-23n-16w, which completed at 6048 feet. The anhydrite is regarded as the true marker at Rodessa. Tyson 1 topped the anhydrite at 4869 feet; elevation is 222.20. Young 1 topped anhydrite at 5011 feet; elevation is 209.13 feet.

According to one geological school of thought and the most generally accepted one, this means this well is probably due for a gas producer. This theory is that wells high up on the structure will be gassers and down the north flank from the high will be found the oil. The other school of thought is that if the gas horizons are penetrated oil may be found below although the saturation probably will be less extensive than down the flank.

At present there are 26 tests in the Rodessa area, including four locations across the Texas line in Cass County. Of the 23 operations in the Caddo Parish part of Rodessa, 11 are drilling. Ten locations have been made in the Rodessa townsite, located in Section 23-23n-16w. All are still locations.

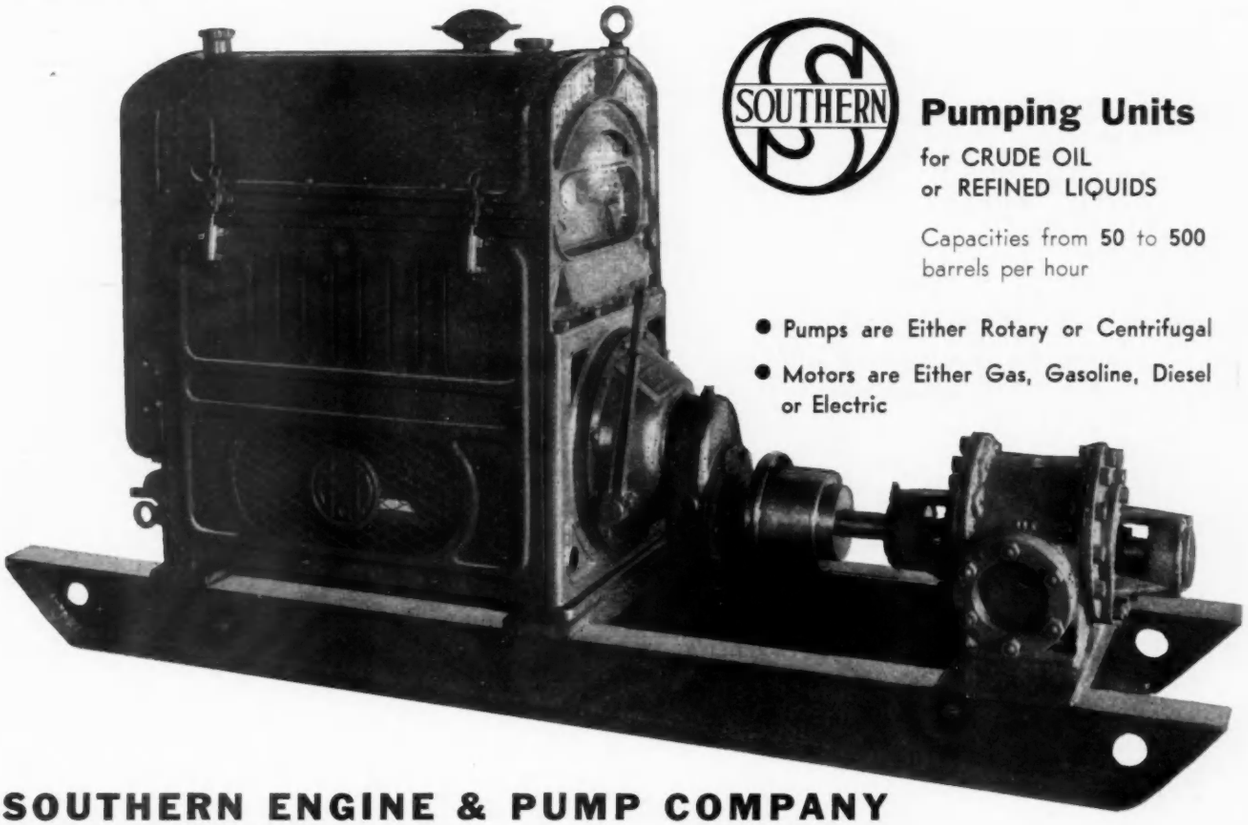
Leasing Active

Indicative of prices being paid for Caddo Parish acreage in the Rodessa are the following: Forty acres SE SE 9-23n-15w, six miles northeast of Rodessa oil well sold by Mrs. Gattie Holm to Y. P. Holm for $4000 cash and a six-months drilling obligation; forty acres in NW SW 10-23n-16w, to F. E. Wilkerson and Ortez Oil Company, $3000 cash and $5000 from production, with a drilling obligation; Mrs. Madie Sharp to H. I. Fishback of New York, 88 acres in Section 4-23n-16w, six miles north of the oil well, for $100 per acre and a drilling obligation; Mrs. Madie Sharp to W. W. Holland of Longview, Texas, 20 acres in the same section for $150 per acre.

In Cass County, Texas, a few miles north of Jefferson and on the southwest end of the "trend", Gulf Refining Company has spent approximately $70,000 for leases. Typical of the leases taken by this company is 125 acres in the 307-acre tract of Mrs. Carrie Blackbourne, J. J. Williams Survey, for which $125 per acre was paid. Gulf Refining Company is also leasing northeast of the "trend" in Columbia County, Arkansas, approximately 35 miles northeast of Rodessa paying $2 per acre. Continental Oil Company is also reported leasing in Columbia County.

Phillips Petroleum Company recently acquired 1000 acres in the Rodessa area including some acreage in Cass County, for a reported consideration of $100 per acre.

Danciger Oil & Refining Company is taking scattered acreage along the 20-mile trend from Jefferson, Texas, to Ida, Louisiana, but appears to be taking its most concentrated acreage near



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Lodi, Cass County. Sun Oil Company has taken some acreage near Kildare and Atlanta, both in Cass County, and west of Atlanta, Shell Petroleum Corporation is taking leases, considerably north of the former "play."

In Miller County, Arkansas, north of the Rodessa field, L. H. Mahon bought 520 acres of K. K. Dickson land in Sections 30, 31 and 32-18-27 for the consideration of the drilling of a well which will seek the oolitic lime horizon of the Glen Rose. Recently in Sections 5 and 8-20-28, Miller County, Governor O. K. Allen of Louisiana and Associates paid $10 per acre cash and $50 in oil for 1195 acres, with a drilling obligation.

In Hempstead County, Arkansas, J. B. Yates has assigned 4000 acres to J. R. Gardner with a drilling obligation for a 3500-foot test. The block centers around Section 32-12-23.

Six geophysical units were operating in Cass County, Texas, last week, just across the state line from the Rodessa field, Caddo Parish. Centering its work around the John Collom Survey was a shooting crew of Shell Petroleum Corporation. In southeastern Cass County, United Gas Public Service Company's geophysical crew is working and near Lodi, The Texas Company has a unit working. Two parties employed by Geophysical Service have been working north of Jefferson, Marion County, but doing most of the work in Cass. Western Geophysical Corporation's unit is working near the John Collom Survey, Cass County.

In the immediate Rodessa area geophysical crews of Stanolind Oil & Gas Company, Sinclair-Prairie Oil Company and Arkansas-Louisiana Gas Company are at work.

BOSSIER PARISH

Shreveport.—Two tests for the oolitic lime of the Glen Rose (Trinity) formation were announced last week in Bossier Parish, one of the tests being just north of the Elm Grove gas field and the other one half-mile east of the nearest of four oolitic lime gassers in the Sligo field.

The former test is McClendon & Miller 1, NW SE 7-16n-11w, to be drilled by C. R. Obermeyer and N. W. DeSoto of Shreveport. The test east of Sligo is Arkansas-Louisiana Gas Company's Roy 3, SWc 18-17n-11w.

NORTH LOUISIANA
Completions

Company, Well and Location	Init. Prod. Bbls.	Depth
BOSSIER PARISH (Bellevue)—		
Premier Inv. Co., Wetherbee 5, se nw 14-19n-11w	10	465
CADDO PARISH (Pine Island)—		
Leonard Co., Dickson 2, 36-21n-15w	*	2375
CADDO PARISH (Dixie)—		
Recovery Oil Co., Sibley 1, nw ne sw 15-19n-14w	*	2482
SABINE PARISH (Converse)—		
Whitehurst et al, Frost 2, ne nw 29-9n-13w	30	1645
SABINE PARISH (Zwolle)—		
Texas Co., Cutrer 1, se ne 11-7n-11w	*	2850

*Failures; †Junked; ¶Million cu. ft. gas.

Marshall, Texas.—Hightower and Weeks, East Texas operators, are assembling a 20,000-acre block in southern Harrison County near Elysian Fields. The proposed test announced will be for the oolitic lime horizon of the Glen Rose (upper Trinity).

URBANA WELL FLOWS

ARKANSAS

WEEKLY STAFF REPORT

El Dorado, Ark.—The first flowing well in several months in the Urbana field, Union County, was completed last week on the west edge of production when Marine Oil Company's W. B. Thompson E-5, NE 10-18-13, made 500 barrels of oil daily through casing from 3567 feet. An immediate offset is planned.

In the southeast edge of the Garland City field, Miller County, Magnolia Petroleum Company's E. V. Olivet 8, NEc NW NW 3-16-26, was completed as a 350-barrel daily pumper at 2942 feet.

One mile northeast of Garland City production, Lee Timberlake's Frost Estate 2, SW SW SE 27-15-26 was abandoned at 2450 feet. The first test on this lease was recently abandoned as a failure at 3097 feet.

ARKANSAS
Completions

Company, Well and Location	Init. Prod. Bbls.	Depth
MILLER COUNTY—		
Lee Timberlake, Frost 2, sw sw se 27-15-26	*	2450
Magnolia, E. V. Olivet 8, ne nw nw 3-16-26	350	2942
UNION COUNTY (Urbana)—		
Marine Oil Co., Thompson E-5, nw ne 10-18-13	500	3567

*Failures; †Junked; ¶Million cu. ft. gas.

MISSISSIPPI

Jackson, Miss.—Gulf Research Corporation has a refraction crew at work in Jackson County, extreme southeast Mississippi. In southern Livingston Parish, southeast Louisiana, which borders the Mississippi line, Shell Petroleum Corporation has two geophysical crews at work.

Amory, Miss.—Frank P. Borden of Amory, who holds considerable wildcat acreage in northeast Mississippi and northwest Alabama, has announced that plans are under way to shoot and then acidize an old test drilled with cable tools in 1927 to 4000 feet. The test, drilled by P. J. McAlpine of Amory was Pittsburg Oil & Development Company's Hobson 1, Section 26-8s-14w, Franklin County, Alabama. At the time of the drilling an oil show in Knox Dolemite at 2577-92 feet was reported.

Hamilton Acidation

RESULTS IN ENCOURAGING PRODUCTION INCREASES

Casper, Wyo.—The Argo Oil Company's acidizing program in the Hamilton Dome black oil field, Hot Springs County, has shown satisfactory results and the company is planning on retreating wells with larger injections. Ellen 16, NE SE 14-44n-98w, completed for 50 barrels initial on the pump at 2603-83 feet in the Embar lime, and is shut down running 2000 gallons of acid. Results on two other acidized wells are as follows: Ellen 17, SW NW 14-44n-98w, total depth 2617 feet, before treatment with 1500 gallons, 50 barrels daily; after treatment, 100 barrels daily. Bradford 19, NE SW 13-44n-98w, total depth 2423 feet, before treatment with 1000 gallons, 35 barrels; after treatment 65 barrels. The company will reacidize wells with 2000 gallon shots following the treatment of Ellen 16. Rathvon-Government 1, NE SW NW 14-44n-98w, in the same field, is drilling at 825 feet.

Lance Creek

The Lance Creek field of eastern Wyoming yielded one completion, a pumping well, from the older producing sands, and had two tests to the third Sundance sand at critical stages.

Ohio Oil Company's Elizabeth Lamb 2, NE NW 3-35n-65w, pumped 304 barrels initial from the first two benches of the Sundance sand between 3642-3707 feet. It is an old well deepened from the Dakota.

Continental Oil Company's Schuricht-Buck Creek 2, SE NE 6-35n-65w, drilling plug with seven-inch set at 3760 feet and total depth at 3895 feet, and is testing. Cement apparently was pumped into the sand and the company is having trouble making test, and the hole may be acidized to dissolve cement.

Argo Oil Company's Elliott 4, CNE NW 5-35n-65w, which will complete in the prolific third Sundance sand, was coring in the second Sundance at 3650 feet.

Ohio Oil Company released location for Converse Sheep Company 5, CSE SW 32-36n-65w, which will complete in the third sand. Carrie Putnam 4, SW NW 23-36n-65w, is waiting on cement to set around the 10¾-inch surface casing at 150 feet, and Elizabeth Lamb 7, CNW NE 5-35n-65w, is a location. Both wells are headed for the third sand.

Big Medicine Bow

Joint well of Ohio Oil Company and The California Company, State 2, CNW NW 36-21n-79w, in the new Big Medicine Bow field, Carbon County, is drilling at 1750 feet in the shale. Rotary equipment from Mountain Fuel Supply Company's test in Daggett County, northeastern Utah, will be moved to Big Medicine for the companies' joint operation, Union Pacific 1-Account 1, NE SW SW 25-21n-79w, which has derrick built.

Rock River

Ohio Oil Company has prospects of another oil well in the new Sundance pool in the old Rock River field. Diamond Cattle Company 4, SW NW 35-20n-84w, is coring in the Sundance at 3233 feet and showing good saturation. This is an old well deepening from the Dakota sand.

Quealy Dome

The California Company's two wells drilling on the recently proved Quealy dome light oil structure, Albany County, report as follows: Holst 2, CSE NW SE 13-17n-77w, is drilling at 1005 feet, and Wilson 1, CNW SW 18-17n-76w, is cementing surface pipe at 152 feet.

Wildcat Test

An important shallow wildcat test has been announced in eastern Wyoming. Riggs Drilling Company of New Jersey, for many years one of the successful companies operating in the Osage field, released location for a test on the Middle Creek structure, Spaugh Land & Cattle Company 1, NW SE 5-33n-65w. The Middle Creek structure is located on the southeastern edge of the Powder River Basin, which forms the drainage area for the Salt Creek, Lance Creek, Big Muddy, Osage and Mule Creek fields. The Dakota sandstone is exposed at Middle Creek and the Sundance, major objective is ex-

MOUNTAIN STATES

Completions

Company, Well and Location	Init. Prod. Bbls.	Depth
MONTANA		
GLACIER COUNTY (Cut Bank)—		
C. P. Castle, State 2, s½ sw 36-35n-6w	220	2777
A. B. Cobb, Young 1, cse ne 5-32n-5w	125	2878
Texas Co., Yunck 5, cse sw 14-35n-6w	80	2874
R. C. Tarrant, O'Brien 1, cse sw 29-34n-5w	¶4	2722
Rutten-Wold 1, cnw ne 13-34n-6w	*	2707
Consolidated Gas Co., State 1, csw ne 26-35n-6w	*	2860
TOOLE COUNTY (Kevin-Sunburst field)—		
Imperial Oil Co., Craig 16, cnw ne 19-35n-1w	15	615
ROSEBUD COUNTY—		
Birney O&G Co., No. 1, sw sw 7-6s-43e	*	400
WYOMING		
HOT SPRINGS COUNTY (Hamilton Dome Field)—		
Argo Oil Co., Ellen 16, ne se 14-44n-98w	50	2683
NIOBRARA COUNTY (Lance Creek Field)—		
Ohio, E. Lamb 2, ne nw 5-35n-65w	304	3707
PARK COUNTY (Frannie Field)—		
Continental, Northern Pacific 3, nw se se 23-58n-98w	1200	3015
WASHAKIE COUNTY (Hidden Dome Field)—		
Wyoming O&R Co., Brome 3, nw nw 31-48n-90w	250	1540
WESTON COUNTY (Osage Field)—		
Cark Kundy, Fee 9, nw nw ne 31-46n-63w	25	1407
COLORADO		
MOFFATT COUNTY (Bartram Dome)		
Mountain Fuel Supply Co., Murdock 1, se se ne 24-12n-101w	*	lcn
NEW MEXICO		
EDDY COUNTY—		
Pecos Valley Gas Co., Hastie 1, se nw ne 17-11s-28e	*	1884

*Failures; †Junked; ¶Million cu. ft. gas.

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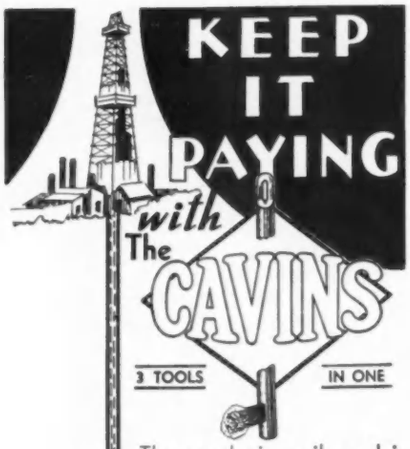

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pected at around 800 feet. The structure is 12 miles south of Lance Creek and 18 miles east of Shawnee Creek structure.

Continental Oil Company apparently will make a good completion in Whiteside 9, NE SE 7-33n-76w, Big Muddy field, Converse County, which is coring in the Muddy sand at 4351 feet. The company's deep test to the Tensleep State 60, NW SW NE 9-33n-76w, is drilling at 1000 feet.

Good Well at Frannie

Flowing 1148 barrels initial, the Continental Oil Company completed its Northern Pacific 3, NW SE SE 23-58n-98w, Frannie Dome field, as one of the best wells in the field. Total depth is at 3015 feet with elevation at 4460 feet. It was the only completion in the fields of northern Wyoming.

Ohio Oil Company's Sidon-Canal 2, Lot 40, SW SW SW 24-56n-97w, is drilling in with seven-inch set at 5053 feet and hole bottomed at 5264 feet. The company has two other wells under way in the Byron field, Big Horn County. Byron-Union 3, SE NW NE 22-56n-97w, is drilling at 3924 feet, and Byron-Union 4, SW NE same section, is rigging up rotary.

The Hidden Dome light oil field, 12 miles northeast of here, which has had desultory results since the discovery well was brought in four years ago, had its first good completion since the initial well. Wyoming Oil & Refining Company (D. L. McDonal and others) completed Brome 3, NW NW 31-48n-97w, for 250 barrels a day of 43 gravity crude at 1540 feet.

CUTBANK FIELD

Reports six completions and four new starts

Cut Bank, Mont.—A flowing well, two failures, two average wells, and a gasser were the six completions in the Cut Bank field, Glacier County, this week. Four locations were released.

C. P. Castle's State 2, S½ SW 36-35n-6w, flowed 220 barrels initial from 2771-76 feet in the Cut Bank sand with hole bottomed at 2777 feet in the Ellis. A. B. Cobb's Young 1, CSE NE 5-32n-5w, swabbed 125 barrels initial after hole filled to 2300 feet at 2878 feet.

The Texas Company's Marie Yunck 3, CSE SW 14-35n-6w, swabbed in for 80 barrels in the first 19 hours from 1800 feet. R. C. Tarrant completed O'Brien 1, CSE SW 29-34n-5w, for 4,000,000 cubic feet of gas daily at 2680-2722 feet. His Ruetten-Wold, CNW NE 13-34n-6w, was dry at 2805 feet after having entered the Ellis at 2707 feet.

Consolidated Gas Company's State 1, CSW NE 26-35n-6w, is a failure at 2707 feet.

The Texas Company started two wells: 9-Unit-1, CNW SE 9-32n-5w, on fee land, is spudding, and is an important test in the southern extremity of the field, approximately a quarter mile north of the company's outpost, State 1, CNE 16-32n-5w. Peterson 1, CW½ 23-36n-5w, in the gas area to the east of the oil production, is rigging rotary.

R. C. Tarrant's Alice Miller 4, CSE NE 24-34n-6w, and R. C. Jeffries' Lukens 3, SE SW SE 1-33n-6w, are locations.

Two wells were near the completion stage. The Texas Company's Morgan 1, CNE NW 33-33n-5w, is drilling plug at 3000 feet, and Consolidated Gas Company's Tribal 8, is cementing 6⅝-inch production string at 2903 feet with hole bottomed at 2913 feet where it has a good show of oil.

FOUR HOBBS STARTS

Two locations will offset recent field extension

NEW MEXICO

WEEKLY STAFF REPORT

Hobbs, New Mexico.—Four new tests authorized for the Hobbs field, included two direct offsets to The Texas Company's Saunders 1, C SE SW 18-19s-37e, which recently extended the area about 3¼ miles to the northeast with a maximum flow of 707 barrels of 32 gravity oil and 500,000 feet of gas daily from dolomite lime at 3973 feet. It was originally tested at 3953 feet, or 260 feet sub sea, and gauged 568 barrels oil after treating saturated lime with 2000 gallons of acid.

Amerada Petroleum Corporation's State 1-G, west offset, has moved in rotary, while Gypsy Oil Company's Baxter V. Culp 1, will be drilled to the south of the producer. The former also made location for State 2-F, C NW SW 36-19s-36e, an east offset to a recent completion by Sun Oil Company in the field proper, while Shell Petroleum Corporation will drill a north offset to State 2-F. Three other tests under way to the west, south and southeast of the Monument field are being watched with interest, as the latter two offer prospects for important extensions, while the west may confirm belief that the structure dips sharply in this direction.

Continuation of production in the Hobbs field in a northwest trend followed by a gradual widening of the structure is believed probable. Amerada Petroleum Corporation and Skelly Oil Company's State 2-E, located 330 feet out of NEc E½ NW Section 24-18s-37e, will shortly confirm or discount such a theory, having topped first anhydrite at 1540 feet and top of brown lime at 2900 feet. It was slated to reach the white lime marker, due near the 4100-foot level, late last week. Continental Oil Company has conceded a successful completion, and has spudded State 2-B-13, a north offset having encountered an abnormally high structural position in completing State 1-B-13, C SE SW 13-18s-37e, last June with a potential rating of 5875 barrels pipe line oil and 8,137,000 feet of gas after treating dolomite lime at 4012-4038 feet with acid. The well was drilled to a sub-sea depth of 358 feet. These two active outpost tests can set in motion a progressive offset program, due to lease ownership.

UTAH

Logan, Utah.—The Mountain Fuel Supply Company's R. D. Murphy 2, CSL NE NE 21-3n-24e, Clay Basin gas structure, Daggett County, northeastern Utah, is plugging back to 5750 feet in the Dakota to complete as a gasser where drill stem tests showed a total of 32,000,000 cubic feet of gas daily. The well drilled to a total depth of 6790 feet and had water in the first two benches of the Sundance.

Watch Outposts

LOCATED EAST OF THE OLD MONTEBELLO FIELD

WEEKLY STAFF REPORT

Los Angeles.—Wells drilling to the east of the old Montebello field in Los Angeles County continue to attract attention, and the feeling is still strong that the field is to be extended well to the east.

Woodward Oil Company's Lapworth 1, on the eastern edge of the new area, has been placed on the pump for 231 barrels of 28.7 gravity oil, cut 21 percent fresh water. The hole was drilled to 3224 feet and plugged back to 3167 feet. This hole is located 400 feet north and 1170 feet east from the southeast corner of Section 31-2-11. It is producing from the Miocene formation and probably will be pumped for a few days to see if the water production can be reduced. If it is not, the next step will be to locate the water.

The Texas Company's City of Whittier 1 is drilling in hard sand and conglomerate at 5650 feet. This well is to the west from the Woodward hole. Wilshire Oil Company has reached 4418 feet in hard sand in Montebello 1. Universal Consolidated Oil Company's Farker 1 is drilling and coring hard sand at 3000 feet.

Certain owners of wells at Huntington Beach which were deflected out under the ocean and who are paying the state a royalty, are disturbed over the action of the state authorities in shutting in wells which have been producing in excess of allowable. Some of the owners are threatening court action.

There are in excess of 80 wells in this field producing from the oil zone under the ocean. Owners of these wells signed a contract to pay the state royalty on all oil produced and the contract contains a clause whereby the owners agree not to produce oil in excess of allowable. In July, state authorities notified all owners of such wells that when individual wells produced their allowable for the month, the wells would be shut in.

A number of the producers were shut in by representatives of the state late in July, and word has gone forth that similar action will be taken in August. This action assures the field will not produce very much in excess of the set allowable this month which will greatly help in holding state production to a lower figure.

Dominguez Completions

Shell Oil Company's Reyes 76 at Dominguez has been completed for 1780 barrels of clean oil at 4554 feet, after cementing 8⅝-inch pipe at 4307 feet. This is one of the best wells in recent weeks for this old field. Same company's Reyes 75 is good for only 115 barrels, cut six percent, at 4507 feet, plugged from 4584 feet.

Six wells are now actively drilling in the old Dominguez field, and three others are to be started during August. Shell Oil Company and Union Oil Company are the only companies operating in the field, and in most instances new holes are being drilled to tap other sands, rather than redrilling old holes for this purpose. It is expected the present drilling campaign will continue throughout the year.

The abandonment of Western Gulf Oil Company's Vail 1 in the Bandini area, almost midway between Los Angeles and Santa Fe Springs, at 6971 feet, apparently means no further drilling will be undertaken in this area. Some years ago, a well was drilled in this area and showings caused operators to build storage and caused a loading rack to be built by the Santa Fe Railroad prior to a production test. The well showed nothing and was abandoned. The Gulf well was carefully cored and nothing was left undone to make a most thorough and careful test of the hole. It is understood cores from near bottom indicated the hole correlated the formation found below the Clark zone at Santa Fe Springs.

Of the notices calling for the starting of 27 new wells in California filed the last week in July, 14 were for Southern California and 13 for the northern part of the state. Only three were for unproven or semi-wildcat territory. Six of the new wells were for Long Beach and Santa Fe Springs drew three. Buttonwillow, Edison and Capitan were credited with two each. So far this year, 600 new wells have been started in the state against 319 for the same period last year. Nine of the most recent new wells are to be drilled by three of the major companies.

CALIFORNIA
Completions

Company, Well and Location	Init. Prod. Bbls.	Depth
LONG BEACH—		
Bush Oil Co., Brenecke 1	50	3550
Marya Oil Co., No. 1	70	3325
Twentieth Century Oil Co., No. 2	150	3775
Winston Oil Co., No. 1	70	3330
HUNTINGTON BEACH—		
Lucky Strike Oil Co., No. 4	160	4170
MONTEBELLO—		
Woodward Oil Co., Lapworth 1	290	3224
SANTA FE SPRINGS—		
Union Oil Co., Bell 82	260	4548
VENICE—		
Embee Oil Co., No. 1	180	6460
Union Oil Co., Vidor 11	800	6306
Dunlap Pet. Co., No. 2	*	6600
WEST COYOTE—		
Standard Oil Co., Emery 59	555	5906
LOS ANGELES COUNTY—		
Western Gulf Oil Co., Vail 1	*	6971
KETTLEMAN HILLS—		
Kettleman No. Dome Assn. 8-20J	5125	8661
EDISON—		
A. T. Jergins Trust, Ross 2	*	1239
Monterey Explor. Co., Duff 7	*	3268
General Pet. Corp., Knapp 2	350	1523
FRUITVALE—		
Western Gulf Oil Co., Holderman 1.	500	3950
MOUNT POSO—		
Baker-Grover Co., Baker 1	175	1685
Shell Oil Co., Matthews 4	435	1734
MOUNTAIN VIEW—		
General Pet. Corp., Brantley 5	150	5628
The Texas Co., Mateo Smith 2	2475	5501
SEMI TROPIC—		
Fullerton Oil Co., No. 77-15	¶25	2413
No. 26-32	¶22	2431
Standard Oil Co., Western Gulf 1	¶5	2360
Superior Oil Co., Bradford 1	¶26	2418
DOMINGUEZ—		
Shell Oil Co., Reyes 75	115	4507
Reyes 76	1780	4554

*Failures; †Junked; ¶Million cu. ft. gas.

FOUR NEW WELLS
Indicate Semitropic is important gas reserve

Los Angeles.—Four new wells in the Semitropic gas field in Kern County completed the past week, with total flush of almost 80,000,000 cubic feet, places the new area very much in the gas field column and indications are the field will build up a large reserve for future use. The wells are being completed, given a test and then shut in.

Superior Oil Company's Bradford 1, Section 23-27-23, is good for 26,000,000 feet at 2418 feet with 8⅝-inch casing cemented at 2290 feet. Total of 130 feet of 6⅝-inch liner was run, 108 feet of which was perforated. It has a shut in pressure of 1050 feet.

Standard Drilling

Standard Oil Company of California is drilling four wells in the field and is getting ready to start three others. Its Goldman, Section 5-27-23, is trying to produce from the third zone with bottom at 4342 feet. Nine-inch pipe has been cemented at 4305 feet and after landing perforated liner, it tested wet. Effort is now being made to locate the water. Same company's Smith fee 1 in Section 9-27-23, is trying to loosen drill pipe with bottom at 4240 feet.

Three other wells are drilling in the field.

Ten of the shut in gassers are to be given a 30-day test at once, each of the 10 wells is to furnish 2,000,000 feet of gas to be run through an eight-inch line to tap the main line to the San Francisco area. This gas is to supplant the same amount heretofore run from the Kettleman Hills field, where certain wells have a large gas/oil ratio.

ERWIN BURNS, vice president and general manager of Baash-Ross Tool Company, recently returned to headquarters in Los Angeles, following a business tour of Texas and Oklahoma. He flew back home from Oklahoma.

ENLARGE CRYSTAL
Pool with flowing well over one mile away

WEEKLY STAFF REPORT

Mt. Pleasant, Mich.—The first major extension of the Crystal-Ferris pool in Montcalm County was developed August 6, when United Producer's Conners 1, 11n-5w-26, was brought into production at 3240 feet, flowing 264 barrels the first six hours by heads. It was shut in for tankage.

The test is located 2½ miles north and a half mile west of the Durbin discovery that opened the Crystal field March 28, this year. Previously the field had been extended north one mile by Burnstein Oil & Gas Company's Keel 1, 11n-5w-35, initial 220 barrels.

Flush production of the Crystal field was more than doubled the past week, chiefly through completion of three wells. J. W. Leonard, Jr.'s Hustead 1, 10n-5w-2, flowed 375 barrels the first hour and was estimated from eight to 10 thousand barrels daily. McClanahan Oil Company's Flint 2, 10n-5w-11, initialed 200 barrels an hour. Leonard's Hustead 2 was completed for 960 barrels a day.

The 19 wells producing in the Crystal-Ferris area have an open flow aggregate rating of 34,000 barrels daily. The field has been virtually unprorated, but the State Regulatory Commitee plans to meet at an early date to lay down proration rules for the area.

Mt. Pleasant, Mich.—Michigan crude oil output topped the million barrel mark for the seventh consecutive month in July, according to figures released by the State Regulatory Committee.

July's production aggregated 1,363,174 barrels as compared to 1,280,000 barrels in June. July's production was the highest ever reached in the state with a daily average of 43,974 barrels.

The Yost-Porter area of Midland County led all other fields with 838,611 barrels. The new Crystal area ranked second with 284,477 barrels. Greendale-Chippewa was third with 108,941 barrels and Ogemaw fourth with 34,842 barrels.

MICHIGAN
Completions

Company, Well and Location	Init. Prod. Bbls.	Depth
MIDLAND COUNTY—		
Pure Oil Co., Younglove 6, 13n-1w, se sw sw-17	600	3395
ISABELLA COUNTY—		
O'Neall & Sarver, Schug 1, 16n-4w, c ne se-31	*	1530
Atha Oil Co., Regan 1, 16n-4w, c nw sw-25	¶2½	1350
Chartiers Oil Co. Graham 2, 15n-3w, sw se sw-28	50	3627
John F. Melvin, De Stoop 2, 14n-3w, nw se ne-2	*	3625
OGEMAW COUNTY—		
Webber Oil Co., Schulty 1, 22n-2e, ne nw ne-29	20	2710
Muskegon Oil Co., Fisk 2, 22n-2e, nw ne ne-29	100	2720
Prudential Oil Co., Donovan 1, 22n-1e, se sw nw	25	2760
Patterson & Louis, Ridgley 1, 21n-3e, nw sw nw-5	*	1200
Strange & Fortney, State 1, 21n-3e, ne nw sw-6	20	2620
MONTCALM COUNTY—		
McClanahan Oil Co., Flint 2, 10n-5w, sw nw nw-11	4500	3199
J. W. Leonard, Jr., Hustead 1, 10n-5w, ne sw sw-2	9500	3188
Hustead 2, 10n-5w, sw sw sw-2	960	3190
Snowden & McSweeney, Wight 2, 10n-5w, ne nw ne-10	60	3187
Wight 3, 10n-5w, se ne ne-10	50	3197
Stork Oil Co., Dickenson 1, 10n-5w, se sw se-3	75	3200
T. F. Caldwell, Pugsley 1, 11n-5w, sw se nw-36	¶11	1031
Daily Crude Oil Co., Christensen 1, 12n-6w, sec 10	70	3099
MECOSTA COUNTY—		
Jetter Oil Co., Parsley 1, 14n-10w, c nw sw-19	*	3900

*Failures; †Junked; ¶Million cu. ft. gas.

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EASTERN STATES

WEEKLY STAFF REPORT

Completions

PENNSYLVANIA

Company, Well and Location	Init. Prod. Bbls.	Depth
ALLEGHENY COUNTY—		
Clark Smith & Co., Smith & Co. 1.	3	....
GREENE COUNTY—		
B. L. Frye, Frye 2	¶	....

WEST VIRGINIA

BOONE COUNTY—		
A. B. Cunningham & Co., Workman 1	¶	886
CLAY COUNTY—		
F. E. McIntosh, Peabody 2	¶	2122
GILMER COUNTY—		
A. E. Ellis & Co., Pickens 1	¶	2578
RITCHIE COUNTY—		
Smith, Tr., Dragel 1	125	....
ROANE COUNTY—		
McIntosh & Norman, Fee 2	12	1716
Henderson Oil Co., Burdette 1	8	....
K. M. Hunt & Co., T. J. Murray 1.	10	1295
Dry Farm 3	1	....
PLEASANTS COUNTY—		
American Oil Dev. Co.-Pierpoint-Reffard 1	25	2300
LOGAN COUNTY—		
Boone County Coal Co., Fee 3	¶	2652
RALEIGH COUNTY—		
Godfrey L. Cabot, Inc., Beaver Coal 6	¶	3516
WIRT COUNTY—		
George Dathey, Righter 6	*	....
ROME COUNTY—		
C. W. Campbell & Co., Gandee 1	7	....

SOUTHEASTERN OHIO

MORGAN COUNTY—		
Foraker & Co., Fitch 1	*	1402
NOBLE COUNTY—		
Geisler Gas Co., Hallation 4	3	887
WASHINGTON COUNTY—		
Cisler & Co., Scott 3	¶	1630
Sheetz Run Oil Co., Jones 4	¶	1930
McVey Bros., Barnett 9	1	1685

LIMA FIELD

ALLEN COUNTY—		
C. A. & F. J. Peavey, Steele 3	15	....
VAN WERT COUNTY—		
J. O. Yahn, Downs 9	10	....
SENECA COUNTY—		
M. E. Kiser, Koerper 4	¶	505
McKinney Bros., Edward 2	¶	470
T. R. Phillips & Co., Watson 1	*	1562

CENTRAL OHIO

PERRY COUNTY—		
Mid East Gas Co., Hull 1	24	....
MEDINA COUNTY—		
Edson Son Co., Wideman 2 & 4	*	....
Wideman 3	20	525
Wideman 5	8	487
Wideman 6	22	510
SUMMITT COUNTY—		
East Ohio Gas Co., Ritter 3	¶	2509
KNOX COUNTY—		
Upham Gas Co., Spurgeon 1	*	3200
TUSCARAWAS COUNTY—		
James Upham, Ellers 1	¶	4513
GUERNSEY COUNTY—		
Frank Lyons, Haney 1	*	1278
MUSKINGUM COUNTY—		
Wm. Knight, Bates 1	*	1333
ATHENS COUNTY—		
Ohio F.G. Co., Warner 1	*	1745
BELMONT COUNTY—		
E. D. Crough & Co., Boyd-Majors 3	*	1774
MEIGS COUNTY—		
Ohio F.G. Co., Moore 1	¶	907
Hutchnow 1	¶	1960
Leading Creek O&G Co., Bentley 1	¶	....
ATHENS COUNTY—		
Carpenter & Glaizer, Smith 2	*	....

*Failures; †Junked; ¶Million cu. ft. gas.

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THE OIL WEEKLY REPORT ON IMPORTANT *Wildcat Tests*

ARKANSAS

ASHLEY COUNTY — Texas Seaboard Oil Co.'s Fee 1, nw ne 28-17-4, spd dr 2015 ft.

CALHOUN COUNTY—Hunter Co.'s Stout 1, nw ne 33-16-13, rur.

HEMPSTEAD COUNTY — F. W. Martin's Lafferty 2, se nw 17-14n-27 dk.

LAFAYETTE COUNTY — Earl F. Fox's Coleman 2, ne ne 30-16-24 mim. W. H. Harvey, et al's R. F. Allen 1, ne se sw 13-19-23 dk. Leach, et al's Bodcaw Lbr. Co. 1, 20-16-25, lcn. Transportation Pet. Co.'s Cochrane 1, ne se 25-19-25, dr 215 ft. Joe Modisett, et al's Frost Lbr. Co. 1, 29-19-24, lcn.

MILLER COUNTY—C. J. Hodges, et al's Commercial Nat. Bank 1, sw ne se 30-17-28, dk. Lee Timberlake's Frost Est. 2, sw se se 27-15-26, dr 2015 ft.

OUACHITA COUNTY—Brown McCullough, Tr.'s Geo. W. Rowe 1, nw se 2-12-19 dr 2000 ft. T. J. Gaughan, et al's M. Bragg 4, nw ne ne 26-13-18, arr to abnd td 1355 ft. Snow-Black Pet. Co.'s Bedford 1, sw sw 32-11-18, dr 990 ft.

UNION COUNTY—Gulf's Werner 49, sw nw sw 5-16-16, elev 128.5 ft. 10-in csg 2293 ft 7-in O.D. csg 6224 ft. Permian salt 6665-7505 ft, anhydrite 7540-76 ft dr 7919 ft rock. Mrs. R. K. Jones' J. Davis 1, nw nw 28-16-14, arr test td 3295 ft. Ohio's Oliver 2, nw sw sw 7-17-13, lcn. Wallingsford & Cobb's Laney 1, 32-19-16, lcn.

COLORADO

ARCHULETA COUNTY—Navajo Oil Co.'s Crowley 1, sw sw ne 11-32n-1e, dr 800 ft with 6⅝ in csg set at 537 ft. Wm. E. Hughes Estate's Fee 1, sw 24-33n-2e, td 837 ft ur 8¼ in csg, 600 ft. Oil City Pet. Co."s Garnett 2, lot 3, nw ne sw 25-33n-2e, dr blue shale 1270 ft, carrying 6¼ in csg.

BOULDER COUNTY—L. R. Steele's Maxwell 1, se nw nw 24-1n-71w, dr 1545 ft.

GRAND COUNTY—Colorado O. R. Co.'s Linke 1, ne sw sw 13-1n-77w, dr 2200 ft.

JACKSON COUNTY—Colorado O. R. Co.'s North Park Coal, c nw nw 18-9n-78w, landed 15½ in csg at 150 ft, running 12½ in and will ur and set at 1500 ft.

LINCOLN COUNTY—Consolidated Smelting & Metals Corp.'s Hancock 1, ne sw 7-17s-52w, fsg 1700 ft.

MOFFAT COUNTY — Mountain F. S. Co.'s Murdock 1, se se ne 24-12n-101w, abd lcn, lease relinquished. Mid-Colorado Pet. Co.'s Omholt 1, ne ne se 29-4n-87w, wo, td 2750 ft in Lakota sand, water in Dakota.

MONTEZUMA COUNTY — McElmo Oil Co.'s West 1, se nw ne 31-36n-17w, pulled 4¾ in and ur 6⅝ in to bottom.

PARK COUNTY — South Park Oil Co.'s State 1, se se sw 16-11s-75w, dr 2130 ft.

CALIFORNIA

KERN COUNTY

ARVIN—General's Mattson 1, 1-32-29, coring sand 6916 ft.

BELRIDGE—Continental's Layman 1, 18-28-20, dr shale 460 ft.

BUENA VISTA LAKE—Shell's B. V. A. 1, 9-32-25, coring silty claystone 8075 ft.

BUTTONWILLOW—Milham Explor. Co.'s Arlington 12-6, 6-28-23, coring 3006 ft, fair gs from 2925 ft. Texas' Sears 1, 6-28-23, grading.

CALIENTE CREEK — Hutcheson & Osborne's O. & H. 1, 32-30-30, td 1082 ft, wocs 8⅝-in csg 850 ft. Geo. Sunday's No. 1, 5-30-30, dr gray sand 500 ft. Woodward Oil Co.'s Wirth 1, 36-29-29, sd 471 ft.

COMANCHE POINT — Tejon Ridge Oil Co.'s No. 1, 23-32-29, co 1935 ft.

GRAPEVINE—Silver Gate Co.'s Tejon 1, 7-10-19, td 1434 ft in gray sand and streaks shell, to run formation tester before setting casing.

GREENFIELD—United Explor. Co.'s Ricomini 1, 23-30-27, dr sand and shale 2510 ft.

LOST HILLS—Standard's United 1, 2-26-20, dr shale streaks oil sand 5590 ft.

McFARLAND—Republic Pet. Co.'s Long 1, 20-26-27, technical spud 7/31, rur. John H. Webb's Alta 1, 16-26-26, wocs 12½-in csg 800 ft, bottom.

McKITTRICK—Big McKittrick Oil Co.'s Wisecarver 1, 30-30-22, rur.

SAN EMIDIO—Ohio Oil Co.'s K. C. L. C-11-49, 11-11-22, rur.

SO. BUTTON WILLOW—Jack Doyle's No. 1, 5-30-24 (was Seeple Oil Corp.), dr sand and shale 3965 ft.

SOUTH DOME—Continental's Gatchell 28-7, 7-25-20, coring shale, fine grained oil stained sand 7421 ft.

WHEELER RIDGE—Reserve Oil & Gas Co.'s Tejon 3, 12-10-19, sd in basalt 1862 ft.

MISCELLANEOUS

FRESNO COUNTY—Taft Well Drlg. Co.'s Kreyenhagen 1, 33-22-16, sd 3555 ft, no water.

HUMBOLDT COUNTY—Texas' Eureka 1, 1-3-2, td 6133 ft, plug 5850 ft, sd.

SACRAMENTO COUNTY—Great American Pet. Co.'s Howard 1, 25-2-8, in hard sand, cable tools, 3025 ft, to resume work.

SAN JOAQUIN COUNTY—Amerada's F. D. L. 1, 15-2-5, coring hard shale 6212 ft; F. D. L. 2, 15-2-5, td 4006 ft, wocs 9⅝-in 3973 ft.

TEHAMA COUNTY — Northern Counties Pet. Co.'s Ewers-Mooney 1, 25-24-3, r 4766 ft.

TULARE COUNTY—Pacific Explor. Co.'s Castle 1, 17-21-27, dr clay 450 ft.

MONTEREY COUNTY—Shell's Branch 1, 34-24-10, dr gray and black shale 4234 ft.

SANTA BARBARA COUNTY

GOLETA—Shell's Hollister 1, 10-4-29, dr sand and shale 1983 ft.

LOMPOC—M. J. Freeman's La Brea 1, 11-7-33, dr deeper from 1035 ft. Lompoc Pet. Co.'s Beauterbough 2, 18-7-34, dr 3514 ft.

SANTA MARIA—Union's LeRoy 1, 16-10-34, lcn, to spud at once.

VENTURA COUNTY

BARDSDALE—Union's Dryden 1, 12-3-20, td 3700 ft, pulled liner, co.

CONEJO — International Oil Developers Powell 1, 33-2-20, td 3060 ft, preparing to pump.

FILLMORE—Texas' Unit Plan 2-1, 29-4-19, milling on junk 706 ft.

HOPPER CANYON—Oil Ridge Oil Co.'s Moran 3, 1-4-19, co 1685 ft.

LAS POSAS—Las Posas Pet. Co.'s Mahan 1, 22-3-20, td 8120 ft, wocs 8¼-in csg 7022 ft.

OXNARD—General's McGrath 1, 26-2-23, dr sandy shale 3388 ft.

SESPE—Bankline Oil Co.'s Wakefield 1, 36-5-20, dr hard shale 60 ft. E. R. McClelland's No. 1, 4-4-19, sd 180 ft. Supreme Oil Co.'s No. 1, 1-4-20, dr hard sand 410 ft. Topa Topa Oil Co.'s No. 3, dr shale 274 ft.

SHIELLS CANYON — Bankline Oil Co.'s Calumet B-1, 3-3-19, bldg rig. The Texas Co.'s Shiells 128, 4-3-19, td 7423 ft, all lower zones wet, plugging to 5150 ft to test.

SIMI—Jas. S. Hull's No. 1, 2-2-18, dr hard sand 245 ft. Paloma Oil Co.'s Paloma Marr 1, 12-2-18, dr hard shale 2650 ft.

SO. MOUNTAIN—Calco Pet. Corp.'s No. 2, 17-3-20, r, td 4160 ft.

VENTURA—Ventura Explor. Co.'s Sexton 1, 30-3-22, dr gray shale 2750 ft.

SOUTHERN CALIFORNIA

ARTESIA—Vanco Dev. Co.'s Millard 1, 25-3-12, sd 5818 ft, dr pipe removed.

BANDINI—West American Oil Co.'s Bandini 2, 20-2-12, td 1050 ft, to set surface casing.

EL SEGUNDO—Colly Oil Co.'s No. 1, 12-3-15, rur. Republic Pet. Co.'s No. 1, 18-3-14, dr miocene shale no showings 7214 ft.

NEWPORT—Wilshire Oil Co.'s Newport 1, 29-6-10, to abn 1947 ft.

PICO—Frontier Oil Co.'s No. 1, 12-2-12, dr 4474 ft.

RICHFIELD—C. H. Shannon's Day 1, 21-3-9, td 5770 ft, plug 2257 ft, sd.

SAUGUS — International Oil Developers' Powell 2, 34-5-16, rur.

TOPANGA CANYON—Monarch Oil Co.'s Sylvia Park 1, 5-1-16, running 14-in csg.

TORRANCE—Eyers Pet. Corp.'s No. 1, 20-4-13, rur.

SAN BERNARDINO COUNTY—Hillman-Long's Pellissier 1, 2-3-8, spud.

FLORIDA

HILLSBOROUGH COUNTY — Southern Pet. Co.'s Mizell & Williams 1, se ne 4-32s-21e, fsg 6-in ds stuck at 1000 ft, td 2465 ft anhydrite.

LAKE COUNTY—Oil Dev. Co. of Fla.'s Gulf Expl. Co. 1, se se 17-24s-25e, elev 100 ft, sd for csg, td 1946 ft (may acidize).

PINELLAS COUNTY — Dr. Edward A. Hill, Tr.'s Meyers 1, ne ne 2-27s-16e, dk.

POLK COUNTY—Dr. Edward A. Hill et al's Polk Co. Lbr. Co. 1, nw nw ne 32-25s-25e, elev 90 ft, dk.

KANSAS

BARBER COUNTY — Wentz' Skinner 1, cnw ne 29-31s-14w, dr 4105 ft. Southern Drlg. Co. et al's Davis 1, sw se ne 13-34s-15w, pulling tubing and preparing to dd.

BARTON COUNTY—Price et al's Ehrlich 1, nw nw se 10-16s-13w, dr 2425 ft. Suppes & Witt's Hays 1, nw nw nw 7-16s-15w, dr 2600 ft. Torry & Feaster et al's Feist 1, ne ne se 29-18s-11w, dr 2170 ft. Palmer Oil Co.'s Morris 1, se nw ne 6-19s-15w, dr 2455 ft. Lario et al's Peter 1, nw nw nw 24-20s-11w, rig.

BUTLER COUNTY—Western Kansas Prod. & Ref. Co.'s King & Marshall 1, nw nw sw 11-28s-6e, dr 2183 ft. Polhemus et al's Semisch 2, cs½ ne ne 5-28s-7e, pumped 20 bbls oil and 2 bbls water 12 hrs.

CLARK COUNTY—Watchorn O&G Co.'s Stevens 1, nw ne nw 21-23s-21w, owdd, otd 4290 ft, co.

COWLEY COUNTY — Lloyd, Frost & Study's Weathered 1, sw se se 28-31s-3e, pumped 550 bbls oil and 70 bbls water. Wakefield's Tharp 1, se se ne 10-32s-3e, td 3465 ft, D&A. Baden, Johnson, Roth & Farrout's David 1, ne ne sw 35-30s-4e, dr 2550 ft.

DICKINSON COUNTY—Dutch Oil Co.'s Phillips 1, cne nw 15-15s-1e, sd 3036 ft.

ELLIS COUNTY—Joe Aylward's Dreiling 1, se se se 3-14s-16w, pb, prod ½ bbl per hr, D&A. Helmerich & Payne et al's Kuhn 1, nw sw ne 16-14s-20w, dr 3657 ft. Palmer et al's Ruder 1, se ne nw 17-15s-18w, td 3425 ft, no test. Stanolind's Penny-Wann 1, nw sw se 12-15s-20w, td 3716 ft, D&A. Ellis County Oil Co.'s Freis 1, se se nw 10-12s-20w, mim. Lewis Roark et al's Bemis 1, se se se 16-11s-17w, dr 575 ft.

ELLSWORTH COUNTY — Lario et al's State 1, sw sw sw 29-15s-8w, fsg. Franco Central et al's Frevert 1, sw sw sw 8-17s-10w, spd.

GRAHAM COUNTY—Helmerich & Payne et al's Stites 1, csw sw 8-10s-22w, td 3864 ft, bailing mud. Vickers Pet. Co. & Phillips Pet. Co.'s Hutton 1, ne ne se 29-8s-22w, rig. Cusco Oil Co.'s Kaufman 1, cne ne 18-6s-24w, rig.

HARPER COUNTY—Kessler & Their et al's Wolfje 1, sw sw ne 17-33s-2w, dr 4600 ft.

HARVEY COUNTY—Winkler-Koch et al's Mueller 1, se sw nw 15-23s-2w, dr 3520 ft. H. H. S. Oil Co.'s Frizzle 1, ne ne se 31-23s-2w, dr 3591 ft. Hartman & Blair's Redinger 1, nw nw nw 15-24s-3w, fsg 3045 ft. Goering Brothers' Brainard 1, ne ne sw 3-23s-2w, dr 1850 ft.

McPHERSON COUNTY — Carey et al's Husband 1, se se nw 6-19s-1w, dr 1705 ft. Hollow, Toews & Hinkle's Aschman 1, nw nw se 8-21s-4w, dr 2590 ft.

RENO COUNTY — Allison-Fitzwilliams et al's Dukelow 1, ne ne ne 11-22s-8w, dr 2360 ft. Anderson Kerr's Davies 1, ne ne ne 28-23s-7w, sd 4102 ft. Haynes Brothers et al's Mueller 1, se se nw 30-24s-4w, co 3602 ft. Stanolind-Amerada's Hilger "A" 1, ne ne sw 21-26s-4w, dr 945 ft. Shell's Reese 1, cw¼ w½ sw 11-26s-9w, dr 600 ft.

RICE COUNTY — Three Rivers Oil Co.'s Buehler 1, nw nw nw 17-18s-8w, ur 8-in csg 2468 ft. Aylward et al's Rickard 1, sw sw nw 22-18s-9w, ru. Detrick et al's Conner 1, cne ne 28-19s-7w, spd and sd. Douglas & Hutchinson O&G Co.'s Hammell 1, ne ne ne 16-19s-10w, mim.

ROOKS COUNTY—El Dorado Ref. Co. et

al's Marshall 1, cse se 8-7s-17w, ru. Smith-Ash's Nelson 1, nw nw ne 27-10s-16w, ur 8-in csg 3090 ft. Tree Oil Co. & Findeiss' Johnson 1, sw sw se 26-10s-19w, dr 2825 ft. Lario et al's Fisher 1, ne ne ne 22-10s-18w, ru.

RUSH COUNTY—Lario, Madison & Hewitt's Gillig 1, ne se nw 24-17s-17w, dr 3315 ft. Twin Drlg. Co. et al's Appl 1, sw sw ne 29-17s-17w, sd 2505 ft. Ramsey et al's Darkes 1, sw sw nw 5-17s-20w, rust 3520 ft. Gypsy's Kraisinger 1, se ne se 23-18s-17w, dr 1697 ft. Darby Pet. Co.'s Jacobs 1, sw sw nw 3-16s-19w, lcn.

RUSSELL COUNTY—Pryor & Lockhart's Spicer 1, ne ne se 21-11s-15w, dr 2740 ft. Roth & Farrout's Shaffer 1, nw nw ne 31-13s-12w, dr 1580 ft. Stearns & Streeter's Dreling 1, sw sw sw 8-13s-15w, dr 1025 ft. Hartman & Blair's Mills 1, se se sw 27-13s-15w, dr 555 ft. J. Brouk & R. D. Bailey's Kluesner 1, nw nw se 34-15s-12w, dr 2745 ft. Coraleana's Flegler 1, se se se 11-15s-14w, dr 2070 ft. Reynolds' Fredrickson 1, se sw se 6-13s-12w, cellar. Vernon & Murphin's Becker 1, ne ne ne 32-15s-14w, dr 2865 ft. Hartman & Blair et al's Claussen 1, se se sw 34-12s-14w, rig. Finney et al's Chenoweth 1, sw sw sw 10-15s-13w, cellar. Nassau Oil Corp.'s Karst 1, nw sw ne 27-15s-14w, dr 1015 ft.

SEDGWICK COUNTY — Dickey et al's Chase 1, se se se 11-27s-2e, dr 1965 ft. Derby et al's Bartholomew 1, sw sw nw 8-27s-4w, rust 4027 ft. Allison & Fitzwilliams et al's Struthers 1, ne sw sw 34-28s-2w, co 3684 ft.

STAFFORD COUNTY—Empire's Grove 1, ne ne nw 5-22s-11w, dr 3090 ft. Davis et al's Riley 1, se se se 19-22s-11w, pumped 205 bbls first 12 hrs and 170 bbls second 12 hrs, pot. 185 bbls oil, comp. Rose Springs Drlg. Co. et al's Toland 1, nw nw sw 2-25s-14w, rig. Atlantic & Phillips' Cornwell 1, cne sw 4-25s-13w, mim.

SUMNER COUNTY—Allison & Fitzwilliams et al's Hitchcock 1-B, se se nw -6-30s-1w, running 6-in csg 3208 ft. Winkler & Koch et al's Belsley 1, sw sw nw 2-32s-2w, dr 1805 ft. Murfin & Stewart's Newton 1, se se se 21-30s-2e, rig. Wilson et al's Clark 1, csl nw 15-35s-1w, rerunning 10-in csg at 1195 ft.

TREGO COUNTY—Hansa & Lauck's Lang 1, se se nw 1-14s-21w, dr 3616 ft. Vickers Pet. Co. et al's Secor 1, nw nw nw 25-15s-24w, dr 2500 ft. Central Commercial Co.'s Wagg 1, nw nw ne 17-13s-21w, fsg 1600 ft.

WOODSON COUNTY — Connell & Marshall's Klick 1, sw nw sw 20-25s-14e, co 1439 ft.

ABBREVIATIONS

The following abbreviations, signs, etc., are used in completions and wildcat reports in THE OIL WEEKLY.

* —*dry hole abandoned well.*
‡ —*salt water (completions.)*
† —*junked and abandoned.*
¶ —*million feet of gas.*
abd —*abandoned.*
bbls —*barrels.*
br —*building rig.*
b.s. —*basic sediment.*
csg —*casing.*
co —*cleaning out.*
dd —*drilling deeper.*
dk —*derrick.*
dr —*drilling.*
fsg. —*fishing.*
ft —*feet.*
hfw —*hole full of water.*
in —*inches.*
lcn —*location.*
m —*milling.*
mim —*moving in materials.*
mit —*moving in tools.*
mot —*milling on tools.*
n, s, e, w, —*north, south, east, west.*
oih —*oil in hole.*
owdd —*old well drilling deeper.*
owpb —*old well plugging back.*
pb —*plugged back or plugging back.*
r —*reaming.*
rog —*rig on the ground.*
rur —*rigging up rotary tools.*
rust —*rigging up standard tools.*
sd —*shut down.*
sdtr —*sidetracking.*
sg —*show gas.*
si —*shut in.*
so —*show oil.*
so & g —*show oil and gas.*
spd —*spudding.*
sr —*straight reaming.*
sw —*salt water.*
td —*total depth.*
ur —*underreaming.*
wih —*water in the hole.*
wo —*workover.*
wocs —*waiting on cement to set.*
wosr —*waiting on standard rig.*

NORTH LOUISIANA

BIENVILLE PARISH—N. V. Duncan et al's J. Miller 1, sw nw 9-18n-7w, 10-in csg 150 ft, dr 330 ft.

BOSSIER PARISH — Bossier O&G Co.'s Sherrell 3, se se 13-19n-12w, dr 1850 ft. Harper & Bird's A. D. Scanland 1, nw se se 32-20n-11w, 10-in 80 ft, dr 350 ft. W. A. Kirklin, Tr.'s Garrett & McKellar 1, se nw nw 3-21n-13w, dr 2640 ft. W. E. Neill et al's Curtis 1, se se 19-17n-12w, wocs 12½ in csg 200 ft. Plain Dealing Synd.'s Dodson 1, nw sw se 25-23n-13w, 10-in 285 ft, dr 2810 ft. Producers O&G Co.'s E. C. Edwards 1, se sw 27-18n-11w, cemtd 12½ in 200 ft. A. H. Richardson's Nattin 1, ne sw 15-22n-14w, spd sd. L. R. Skidmore's Davis 1, se se 12-18n-13w, sg, td 2250 ft. Leonard Co.'s Pearson 1, 22-21n-14w, sd 3410 ft. Virgil Likens' Palmer 1, sw ne 1-21n-11w, dk.

CADDO PARISH (Rodessa)—Ark-La. Gas Co.'s J. S. Teamer 1, sw se sw 13-23n-16w, dr 2835 ft. Eastern Prod. Co.'s & D. C. Richardson's Caddo School Bd. 1, swc block 35 (Rodessa townsite, 2-ac), 23-23n-16w, lcn. Haynes Prod. Co.'s Tyson 1, nw se 24-23n-16w, 9⅝ in csg 2080 ft, dr 5480 ft; W. B. Lawton 1, swc 14-23n-16w, dr 3230 ft; H. Otwell 1, se se 15-23n-16w, dr 580 ft. Will Hall, Tr.'s Willis 1, lot 5, block 7, Rodessa townsite, 23-23n-16w, dk. R. W. Norton's Caddo Levee Bd. 1, se ne 21-23n-16w, dr 875 ft. O'Brien Bros. & Rex Drlg. Co.'s Rodessa Oil & Land Co. 1, nw sw 14-23n-16w, dr 950 ft. Pelican Oil & Gasoline Co.'s T. Sexton 1, ne se 14-23n-16w, dr 2850 ft. United Gas Pub. Serv. Co.'s Thomas Unit 1, ne nw nw 23-23n-16w, dr 3230 ft. Wm. Bremer Unit 1, sw nw sw 22-23n-16w, dr 1605 ft. G. Gibson Est. 1, se sw se 15-23n-16w, rur; Rodessa Oil & Land Co. 1, se ne se 15-23n-16w, rur.

CADDO PARISH—Ed Bailey's Hartzo 1, ne nw 28-22n-15w, sd 1230 ft. F. H. Hyde, et al's Thigpen-Herold 1, nw nw se 5-15n-15w, sd 1170 ft. A. D. King, Tr.'s Roach 1, 4-14n-16w, sd 2712 ft chalk. Ty-Stan, Inc.'s Jolly 1, sw sw 22-22n-15w, rur.

CALDWELL PARISH — Caldwell Drlg. Co.'s Luna Gore 1, ne sw 30-18n-3e, rur. Critchett & Wood's Kyle 1, 18-11n-3e, lcn. G. C. Davis et al's La. Cent. Lbr. Co. 1, sw sw 14-11n-3e, sd 1850 ft. G. W. Zeigan et al's La. Cent. Lbr. Co. 1, nw sw sw 25-13n-3e, sd 1190 ft.

CATAHOULA PARISH—McIntyre et al's Tensas Delta 1, sw nw ne 18-10n-2e, 10-in csg 340 ft.

DE SOTO PARISH — Flesh & Hootkins' Farmer 1, se se 14-12n-13w, rur to kill and test so and sg, td 3035 ft. Frailey et al's J. E. Stell 1, 5-12n-16w, ru and sd. M. L. Stephens et al's Alston 1, ne sw 11-11n-16w, 6 in csg 1400 ft.

EAST CARROLL PARISH—Century Oil & Drlg. Corp.'s Olive Dell 1, 56-21n-12e, dr 2835 ft new hole.

GRANT PARISH—Alexander et al's Maxwell 1, 9-9n-1e, dr 500 ft.

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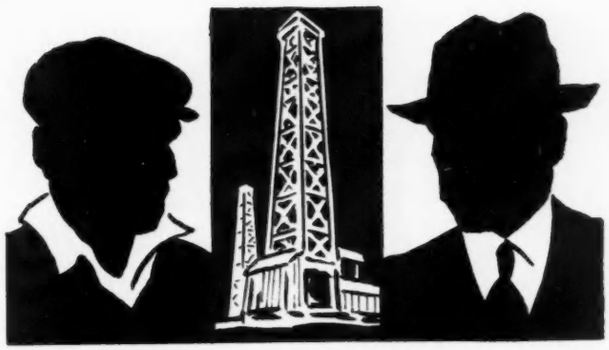

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NATCHITOCHES PARISH — Clyde & Creighton et al's Friedman Est. 1, swc 52-7n-6w, to test 3560 ft. Edwards & Turner's Prudential 1, nw nw 26-10n-6w, dk. Howard & Kittrell's DeBlieux 1, nwc 83-10n-7w, dr 305 ft. Roy Raines, et al's Raines 1, sw sw 28-9n-10w, co td 3565 ft.

OUACHITA PARISH — American Liberty Oil Co.'s Golson 1, nw nw 25-17n-1e, moving in heavy rig 3860 ft.

RED RIVER PARISH—Howard & Kittrell's Chaffraix 1, 30-12n-10w, dk.

WEBSTER PARISH—Burnett et al's Fulbright 1, ne ne 1-18n-10w, rur.

WINN PARISH—P. E. Parsons, et al's Tremont 1, nw sw 10-12n-2w, rur.

LOUISIANA GULF COAST

ACADIA PARISH—Continental's Theogen Ortigo 1, nw of Iota, sec 28-7s-2w, pulling tubing and screen to deepen, td 8308 ft.

CALCASIEU PARISH — Union Sulphur Co.'s Prairie Farm Land 1, s of Lake Charles, sec 1-11s-9w, dr shale 1122 ft. Wheeler Oil Co.'s School Land 1, s of Iowa field, sec 16-9s-7w, dr shale 5891 ft. Buhler Oil Co.'s Faist 2, 900 ft se of No. 1, sec 26-8s-10w, reaming to bottom 3568 ft.

CAMERON PARISH — Magnolia's Broussard 1, sec 13-12s-9w, sdtr 6100 ft.

EAST BATON ROUGE PARISH—Superior's Duplantier Community 1, s of Baton Rouge, sec 65-7s-1w, running an electrical logging device at 7721 ft.

EVANGELINE PARISH — Little Pigeon Oil Co.'s McHugh 1, sec 26-12s-10e, sd 1590 ft.

IBERIA PARISH—National Oil Co.'s De Rouen 1, ne of Jefferson Lake, sec 38-12s-5e, sd 200 ft. Texas Co.'s State Lake Fausse Point 1, s flank of dome, sec 35-11s-8e, dr sand 5509 ft.

JEFFERSON DAVIS PARISH — H. M. Naylor's Boudreaux-Johnson 1, sec 39-10s-3w, sd 800 ft.

ST. BERNARD PARISH — Emerald Pet. Co.'s Shell Beach Properties 1, s of Bayou Louis, sec 31-13s-16e, sdtr 1300 ft.

ST. MARTIN PARISH — Texas Co.'s St. Martin Land Co. 7, Henderson Prospect, sec 9-8s-7e, dr shale 8297 ft.

TERREBONNE PARISH—Dulac Oil Co.'s Harry Bourg 1, se of Lake Boudreaux, sec 10-20s-17e, woc 760 ft.

MISSISSIPPI

BOLIVAR COUNTY—White & Jones' Ballou 1, ne ne 18-24n-7w, dr 1225 ft.

GEORGE COUNTY—Gulf's Dantzler 8, sw se 10-2s-9w, sp.

GRENADA COUNTY—W. L. Stewart's W. W. Wood 1, se ne 19-22n-5e, top Paleozoics 3995 ft, sd repr rig, td 4100 ft, slate (Paleozoics).

MADISON COUNTY—Cleve Love et al's P. F. Simpson 1, nw nw 30-8n-1w, lcn.

MICHIGAN

MONTCALM COUNTY — Ide Oil Co.'s Towle 1, 11n-5w-6, dr 1000 ft. Gordon Oil Co.'s Paulson 1, 12n-9w-24, dr 3100 ft; Keyt 1, 12n-8w-21, dr 1300 ft. Rex Oil and Gas Co.'s Newland 1, 12n-8w-2, dr 600 ft. Frank J. Asam's Pakes 1, 10n-6w, ne ne ne-7, lcn. Jones and Woodruff's Martin 1, 11n-6w-29, dr 400 ft.

GRATIOT COUNTY — Newark Oil Co.'s Beck 1, 10n-3w-29, Monroe 3275 ft, sg&o, 3503-8 ft, sd 3550 ft, sw. Bila Oil Co.'s Ryan 1, 10n-1w-32, sg 890 ft, sd. Mid State Development's Anderson 1, 11n-3w-20, fsg 1300 ft. St. Louis Pipe and Supply Co.'s Loganbach 1, 12n-2w-10, dr 2000 ft. Michigan Gas and Oil Co.'s Dean 1, 11n-3w-30, dr 2400 ft. John Pentknowski's Sharrar 1, 11n-4w-23, dr 500 ft. Jackson-Myer's Garner 1, 9n-4w-10 ne se se, rig.

GLADWIN COUNTY—Sun Oil Co.'s Fanslau 1, 18n-2w-6, dr 1400 ft.

OSCEOLA COUNTY — Gordon Oil Co.'s Giese 1, 18n-10w-34, dr 3380 ft. Sun Oil Co.'s McLaughlin 1, 17n-8w-35, dr 600 ft.

CLINTON COUNTY—D. A. Burris' Becker 1, 8n-3w-35, dr 2100 ft.

ROSCOMMON COUNTY — Durham and Jone's Eggleston Ranch 1, 21n-2w-9, fsg 815 ft.

IONIA COUNTY—J. V. Wicklund's Cutler 1, 8n-5w, nw sw nw-10, br, Gordon Oil Co.'s Muir Bank 1, 8n-6w-30, sp.

KENT COUNTY—Lowell Dev.'s Kallinger 1, 7n-9w-35, td 2903 ft, pb to 2565 ft, treating with acid.

NEWAYGO COUNTY — C. W. Teater's Sawyer 1, 12n-12w-5, sd 2385 ft.

MONTANA

BIG HORN COUNTY—Enterprise Oil Co. and Norbeck Drilling Co.'s Lynde 2, sw nw se 21-6s-35e, is dr 3570 ft (corrected depth).

CARBON COUNTY—Bailey Round Butte Oil Co.'s Test No. 1, ne se 3-6s-23e, is dr 1305 ft.

FERGUS COUNTY—Emmons et al's 1, ne se 6-20n-18e, set 8¼ in csg 1290 ft. Judith Operating Co.'s Government 1, csw sw 26-22n-17e, spd.

GALLATIN COUNTY — Montana Gas & Pet. Co.'s Tice 1, ne ne ne 28-1n-2e, is dr 2415 ft.

ROSEBUD COUNTY—Birney O&G Co.'s Fee 1, sw sw sw 6-6s-42e, abd 400 ft.

STILLWATER COUNTY — Continental's Parker 1, se sw 25-5s-17e, lcn; Orr 1, sw nw se 18-5s-17e, dr 2955 ft.

TOOLE COUNTY—Fraser & Kluth's Severence 1, cse ne 29-32n-2e, is resuming dr 1550 ft, landed 6⅝ in csg at 1508 ft. T. B. Kyles' Clark 1, nw se 24-37n-1w, developed 3,500,000 cu ft gas at 1620-23 ft, running 8¼ in csg to 1620 ft.

VALIER COUNTY—Texas Co.'s Unit-5-1, csw sw 3-30n-5w, dr 2750 ft.

NEW MEXICO

CHAVES COUNTY—John Tannehill's Campbell 1, ne se ne 1-11s-25e, dr by tools 801 ft. Worman Oil Tust's Hoar 1, nw se 9-14s-15e, testing so at 1390 ft, td 1683 ft.

EDDY COUNTY—Geo. F. Getty Oil Co.'s Andrew Dooley 7, swc nw 24-20s-29e, elev 3309 ft, co with tools, td 6053 ft.

LEA COUNTY—Amerada's H. F. Andrews 1, c nw nw 12-20s-36e, Monument area, elev 3576 ft, top anhydrite 933 ft, top salt 1195-2298 ft, dr 3225 ft; State 2-F, c nw sw 36-19s-36e, mim; State 1-G, c sw sw 18-19s-37e, mim. Culbertson & Irwin's Eva Brown 1, c ne ne 23-21s-32e, sp; Sue Richardson 1, c sw se 10-21s-32e, cem 12½-in cas 500 ft. Gypsy Oil Co.'s Baxter V. Culp 1, c ne nw 19-19s-37e, Monument area, lcn. Jeffers Oil Co.'s C. Britt-Conoco 1, c se nw 7-20s-37e, Monument area, elev 3554 ft, dr 905 ft; C. M. Carlson 1, c nw se 27-25s-37e, elev 3025 ft, top salt 1065 ft, dr 2310 ft. Harry Leonard et al's C. W. Justis 1, swc nw nw 20-25s-37e, elev 3067 ft, rur, td 2662 ft. Maljamar O&G Corp's L. R. Simon 1, c ne ne 29-17s-32e, Maljamar area, lcn. Ohio State-Maxwell 1, c ne nw 16-22s-36e, s Eunice area, elev 3573 ft, dr 3550 ft. Shell's State 2-E, c sw nw 36-19s-36e, Monument area, lcn. Skelly's E. Coates 1, c sw se 3-24s-36e, n Cooper area, elev 3392 ft, dr 3150 ft. Sun's H. S. Record 1, c nw nw 22-22s-36e, s Eunice area, dr 850 ft; W. B. Maveety 2, c sw se 35-19s-36e, Monument area, dr 575 ft. Texas Co.'s Saunders 1, c se sw 18-19s-37e, Monument area, elev 3693 ft, top anhydrite 1288 ft, top brown lime 2585 ft, dd to 3973 ft, gauged 676 bbls oil via tubing 24 hrs. TP C&O Co.'s State 1, lse 2, c se sw 9-22s-36e, s Eunice area, elev 3567 ft, dr 3515 ft.

SANDOVAL COUNTY — Continental's L-Bar Cattle Co. 1, se 2-13n-4w, dr 2835 ft.

SAN MIGUEL COUNTY — Cabra Springs O&G Co. Pine Mesa, sw ne ne 22-12n-22e, dr shale 4210 ft. Pine Mesa 2, sw sw sw 31-12n-22e, dr 1360 ft.

QUAY COUNTY — Quay County Devonian Co.'s Wallace 1, se sw 19-9n-33e, dr below 650 ft, sg 600 ft.

TORRENCE COUNTY—Bruce Frazeer's Fee 1, cse se 20-21s-13e, dr 1300 ft in granite wash. 48 Petroleum Co.'s Greenfield nw sw 17-9n-8e, dr below 600 ft.

UNION COUNTY — Sierra Grand Corp.'s Rogers 1, cne se 4-29n-29e, running 8¼-in csg to bottom in granite wash 2610 ft.

OKLAHOMA

ALFALFA COUNTY—Tex-O-Kan's Acre 1, csw ne 14-24n-11w, cemented off tools.

ATOKA COUNTY—Pierce et al's Aetna Life Ins. 1, nw sw ne 10-1n-13e, td 985 ft, recemented 941 ft. Vierson et al's Williams 1, ne sw nw 34-2s-10e, set 10-in csg 1790 ft, dr 1840 ft. Mid-Continent et al's Fulton 1, sw sw sw 19-1s-12e, dr 1299 ft. L. O. Garner et al's Garner 1, ne nw ne 27-1n-15e, rig.

BECKHAM COUNTY—Star Oil Co.'s Blair 1, cnw se 32-9n-26w, rig and tools on lcn.

BRYAN COUNTY—Trio Oil Co.'s Gilbert 1, sw ne sw 25-6s-7e, td 896 ft, woc. Welch's Collins 1, sw sw nw 19-8s-8e, dr 820 ft. Smith et al's Henry 1, cnw ne 10-8s-7e, rig.

CADDO COUNTY—Denver P. & R. Co.'s Sah-Cam 1, cse se 33-10n-10w, dr 8205 ft. Lee et al's Stacey Ferrell 1, sw ne ne 3-6n-13w, dr 2380 ft. Turner et al's Sapin 1, ne ne sw 1-5n-11w, coring 2603 ft.

CARTER COUNTY—Waco Turner's Munson 1, ne nw ne 35-5s-2w, dr 4725 ft. Carter's Humble-Williams 1, sw ne sw 27-2s-3w, dr 6686 ft.

CHOCTAW COUNTY—Burns et al's Hallum 1, ne nw nw 4-7s-20e, sd 75 ft. Abernathy's Christian 1, sw se se 1-6s-19e, dr 577 ft. Rhodes et al's Possumik Savings Bank 1, se se se 1-5s-17e, set 10-in csg 204 ft, dr 322 ft.

CLEVELAND COUNTY — Hall-Briscoe, Inc.'s Fant 1, sw sw ne 27-10n-2w, dr 3886 ft. Arab Pet. Co.'s Kennedy 1, se se nw 16-7n-1e, dr 4275 ft.

COAL COUNTY — Carter et al's John Thompson 1, csl ne nw 34-2n-9e, dr 4301 ft. Amerada & Stanolind et al's Travelers Life Ins. 1, sw nw se 28-1s-9e, dr 4646 ft.

GRADY COUNTY — Verser Clay et al's Thomas 1, ne se nw 1-6n-6e, dr 2870 ft.

GRANT COUNTY—Helmerich & Payne's Crouse 1-A, cne sw 29-25n-8w, dr 6470 ft. Shell Pet. Corp.'s Foster 1, nw nw se 30-27n-8w, dr 100 ft. Wenta et al's Wirtz 1, se se nw 22-28n-4w, dr 2610 ft.

GREER COUNTY—Payne et al's Tressell 1, nw nw nw 1-7n-22w, sd 1781 ft. Fred Morgan et al's Carder 1, csw se 19-4n-22w, td 3227 ft, D&A.

HARMON COUNTY—Massard & Caudle's Crosnoe 1, se se sw 14-3n-25w, ru and sd.

HUGHES COUNTY—Texas' Keaton 1, nw nw sw 4-8n-10e, set 5-in csg 3950 ft. Earl Sadler's Scott 1, nw nw nw 23-7n-9e, dr 360 ft.

JACKSON COUNTY — Triangle Prod. & Ref. Co.'s Fox 1, cnl se sw nw 11-3n-20w, sd 632 ft. Palo Duro Oil Co.'s Ealum 1, sw sw se 16-2n-21w, sd 2505 ft. Gypsy's Boucher 1, nw sw sw 32-1n-19w, sd 2340 ft. Dengail Oil Co. et al's Robinson 1, se se ne 32-1s-22w, dr 2545 ft.

JEFFERSON COUNTY—Howell's Curry 1, se se sw 36-4s-9w, dr 965 ft.

JOHNSTON COUNTY—Neff's Rutherford 1, ne se nw 13-4s-5e, td 271 ft, D&A. Neff's Rutherford 2, ne se nw 13-4s-5e, rig.

KAY COUNTY—Marshall-Haddock et al's Hermes 1, sw sw nw 6-26n-4e, dr 1475 ft. Lindsay's Waggoner 1, nw nw ne 3-27n-1e, dr 3265 ft. Lewis Prod. Co.'s Hollenbeck 1, se ne se 18-27n-2e, mim.

KIOWA COUNTY—Connelly's McCord 1, nw se ne 15-1n-17w, co 300 ft. Rajah et al's Stone 1, cse ne 34-1n-17w, sd 1395 ft.

LE FLORE COUNTY — McGraw et al's Tidwell 1, cnw se 17-3n-22e, set 20-in csg 75 ft, woc.

LINCOLN COUNTY—Texas' Niccum 1, se sw nw 28-14n-5e, pb with 50 sacks, wocs. Amerada & Stanolind's Connelly 1, se ne se 23-14n-2e, dr 3728 ft.

LOGAN COUNTY — Sinclair & Slick-Urchel's Koatsch 1, sw sw sw 23-15n-3w, si for tanks. Anderson-Kerr et al's Goodiun 1, ne ne ne 15-15n-3w, dr 850 ft. Olson, Anderson-Prichard & Buttram's Cavalt 1, nw sw se 22-16n-3w, rur. Stanolind-Amerada & Eason's Gragg 1, sw sw ne 20-18n-4w, dr 3630 ft.

LOVE COUNTY—Sinclair Prairie's Stockton 1, se se sw 26-6s-2w, dr 2416 ft.

MAJOR COUNTY—I. T. I. O. & Continental's Fairview 1, csw se 32-22n-14w, dr 6506 ft.

MARSHALL COUNTY—Smith's Chestnut 1, ne ne ne 23-8s-5e, dr 275 ft. Schermerhorn Oil Co.'s Rich 1, sw se se 35-4s-4e, dr 922 ft.

MURRAY COUNTY — Hernsby & Jones' Sadler 1, ne ne nw 20-1n-2e, mir. Bland et al's Center 1, ne ne ne 6-4s-2e, td 1896 ft, D&A. Equitable Oil & Gas Co.'s Ferguson 1, ne ne sw 36-1s-3e, dr 2210 ft.

NOBLE COUNTY—Atlantic et al's Strom 1, ne ne se 8-20n-1w, dr 2850 ft.

OKFUSKEE COUNTY—Sunray's Culla 1, ne sw ne 13-12n-8e, dr 1055 ft.

OKLAHOMA COUNTY—Texas' Wood 1, sw sw ne 34-15n-4w, dr 2975 ft. Gypsy & I. T. I. O.'s Salisbury 1, nw ne ne 13-14n-4w, td 6650 ft, bailing. Sinclair Prairie Oil Co.'s Corberr 1, ne nw ne 17-13n-3w, to kill and run Schlumberger.

OSAGE COUNTY—J. A. Freeburg et al's 1, ne ne se 1-25n-6e, dr 695 ft.

PAWNEE COUNTY — Stanolind et al's Shunatana 1, ne sw se 32-22n-3e, pb 2846 ft, woc.

PAYNE COUNTY—Amerada's Freidemann 1, se se se 28-19n-3e, sd.

PONTOTOC COUNTY — Phillip Boyle's McCracken 1, ne nw nw 31-5n-4e, pb 2167 ft. Southern Oil Co.'s Walker 1, nw nw sw 11-4n-6e, pumped 20 bbls oil 24 hrs, comp. Franks' Abbott 1, sw nw ne 34-6n-6e, rig. Leonard Williams et al's Breedon 1, nw nw nw 6-2n-5e, rust. Continental's McCarthy 1, csw nw 12-1n-7e, dr 2037 ft. McBride et al's Copeland 1, se se nw 31-4n-5e, lcn. Fleetborn's Oliver 2, ne nw se 21-4n-5e, attempted to pb, no shut off, D&A. McBride et al's Bentz 1, se ne sw 4-1n-6e, rig.

PUSHMATAHA COUNTY—C. W. Whitehead's Messer 1, se sw sw 35-3s-18e, dr 3401 ft.

SEMINOLE COUNTY—Van Deventer et al's Bender 1-A, ne ne sw 3-8n-8e, pulled 6-in csg and sd. Tom Phillips et al's Abbott 1, ne ne ne 33-8n-7e, running tubing. Carter Oil Co. & Shell Pet. Corp.'s Brown C-41 1, cw¼ se sw 23-8n-5e, D&A. Scott & Smith's Abb 1, se nw se 4-6n-6e, td 2134 ft, rust.

STEPHENS COUNTY — Prince Brothers' Williams 1-A, sw sw se 19-2n-8w, rur.

TEXAS COUNTY—Cabot Carbon's Jackson 1, cnw ¼ 7-3n-15ECM, dr 4020 ft.

WASHITA COUNTY—McWhirter et al's Fee 1, nw sw sw 34-8n-19w, sd 1008 ft. Oklahoma Mid-Western Oil Co.'s Dock 1, sw sw sw 21-8n-18w, sd 2717 ft.

EAST TEXAS

ANDERSON COUNTY — Gulf's Southern Pine 2-A (115.9-ac), J. C. Rosson sur, Camp Hill area, elev 655 ft, Pecan chalk 3986-4270 ft, Austin chalk 4890-5108 ft, top Woodbine series 5220 ft, sand 5222-36 ft, made oil on dst, sd to cem 7-in cas 5221 ft; Southern Pine 3-A, elev 598 ft, Pecan chalk 3940-4234 ft, Austin chalk 4871-5089 ft, top Sub-Clarksville sand 5089 to 5095 ft, showed 3600 ft oih on dst, sd to cem 7-in cas. J. W. Luttes et al's C. M. McKee 1 (100-ac), W. F. Pool sur, 3 mi se Frankston, elev 391 ft, Pecan chalk 3830-4390 ft, sd 4516 ft. Tide Water & Texas Seaboard's N. N. Wills 21-A, Cayuga field Trinity test, elev 308 ft, cem 7-in cas 8750 ft, testing at 8890 ft; H. B. Keeling 1 (80.65-ac), S. Sanchez sur No. 10, Long Lake area, rig; Shaw & Cern 1 (1216-ac), D. Parker sur, Long Lake area, elev 300 ft, Pecan chalk 3580-3618 ft, Austin chalk 4654-4905 ft, top Woodbine 5140 ft, pb fr sw at 5377 ft to 5348 ft, perforated cas at 5338-48 ft, completed flowing 70 bbls 40 gravity oil daily via 3/32-in choke on tubing.

BOWIE COUNTY—Tex-Ark Oil Co.'s Hamilton 1 (40-ac), J. Milam sur, elev 272 ft, sd 1121 ft. Woodley & Bentley's Lumpkin 1 (245-ac), J. McDermott sur, 1 mi s Dalby Springs, mim.

CAMP COUNTY—E. J. Moran, G. E. & Ray Hubbard's Mitcham 1 (100-ac), L. Rose sur, 1½ mi n Newsome, lcn.

CASS COUNTY—S. A. Thompson et al's Allen 1 (150-ac), Wm. King sur, 3 mi s Hughes Springs, lcn. American-Liberty Oil Co.'s J. B. Rogers 1, C. M. Robinson sur, Rhodessa area, lcn.

CHEROKEE COUNTY—Shell's New Birmingham 1 (1040.38-ac), L. Jordan sur, Rusk pool, elev 487 ft, Pecan chalk 4046-4438 ft, top Austin (soft) 4930 ft, hard chalk 4951-5194 ft, top Woodbine series 5196 ft, top sand 5289 ft and sd for dst 5292 ft. T. J. Wood & Young's New Birmingham 5 (160-ac), Levi Jordan sur, Rusk pool, lcn.

FREESTONE COUNTY—J. A. Hoover & J. A. Bain's McFall 1 (65-ac), S. Garrison sur A-749, dk.

GREGG COUNTY—L. P. Kean et al's S. M. Smith 1 (120-ac), W. W. Avery sur, sd 1420 ft.

HENDERSON COUNTY—Taubert & McKee's M. T. Dodd 2 (160-ac), Geo. Aldrich sur, 4 mi e of Malakoff, elev 359 ft, top Austin chalk 3360 ft, coring 4055 ft. J. K. Wells et al's Warren 1 (121-ac), T. Hanna sur, 4 mi w LaRue, sd for repairs 2000 ft.

HUNT COUNTY—Long & Wolfe's Chapman 1 (444½-ac), E. Murphy sur, 6 mi w Greenville, elev 595 ft, top Austin chalk 740 ft, dr 920 ft. J. F. Morrissey Co.'s Fry 1-A (146-ac), C. Davis sur, 7 mi se Ladonia, elev 561 ft, dr 3300 ft.

KAUFMAN COUNTY—Murray & Emerson's Martin 1 (100-ac), W. F. C. Butler sur, elev 429 ft, sd 1784 ft.

LAMAR COUNTY—Texas Gulf Pet. Co.'s Darnell 1 (40-ac), H. L. Williams sur, 4 mi ne Paris, dr 975 ft.

LEON COUNTY—Tide Water & Texas Seaboard's G. W. Burkitt 1 (645½-ac), S. Sanchez sur No. 7, Long Lake area, dr 2500 ft.

LIMESTONE COUNTY—Dan H. Daugherty et al's Welch 1 (94-ac), P. Varella sur, Austin chalk 2350-2650 ft, top Woodbine 2890 ft, td 3121 ft, fsh tubing. J. Mills et al's Hunt 1 (34¼-ac), Isreal Woods sur, 3 mi ne Kosse, Pecan chalk 2010-2137 ft, Austin chalk 2780-3158 ft, top Woodbine series 3578 ft, top Buda lime 3735 ft, sd 3802 ft.

MORRIS COUNTY—J. N. Buchanan et al's P. M. Staggers 1, J. D. Nelson sur, elev 363 ft, sd 4259 ft. Joiner et al's Fee 1, Wm. Coffey sur, lcn. S. J. Rotondi et al's Smith 1 (50-ac), M. C. Vela sur, 2½ mi sw Naples, dr 1770 ft. B. L. Watson et al's Hall 1 (177-ac), L. Jordan sur, 5 mi ne Daingerfield, top sand 4175 ft, sd 4205 ft.

NAVARRO COUNTY—Peyton Bros.' (was W. J. Keeling Est.) J. F. Rushing 1 (84ac), Henry Ford sur, 6 mi w Currie, elev 530 ft, Austin chalk 2150-2395 ft, top Woodbine 2858 ft, repair casing, td 2895 ft.

RAINS COUNTY—W. A. Allen, Geo. W. McClung & Harry B. Baker's Ida Bullard 1 (75-ac), Nancy Brantley sur, 2 mi sw Emory, dk; Mrs. Olma Giles 1 (77-ac), Thos. Cunningham sur, 6½ mi sw Emory, dk.

RED RIVER COUNTY—J. S. Abercrombie Co.-Harrison Oil Co. & D. S. Hager's Bowers-Grant 2 (537-ac), P. D. Midkiff sur, 8 mi nw Clarksville, sp and sd. R. H. Chew et al's J. F. Brooks 1 (320-ac), Ben Gooch sur, ½ mi s of Bagswell, dk. Porter Newman, Tr., Spear & Nelson's R. L. Gibson 1 (58-ac), W. L. Gibson sur, 2¼ mi se Bogata, elev 425 ft, top Woodbine series 2145 ft, top Red Beds 2280 ft, top Georgetown lime 2580 ft, dry and abd 3625 ft.

ROBERTSON COUNTY — J. C. Kilgore, Tr.'s Ely 1 (616¾-ac), Antonio Manchacha sur, (shallow), sd 230 ft. H. L. Patton Co.'s Ely 1 (616¾-ac), Antonio Manchacha sur, 5 mi se Hearne, elev 392 ft, sd 3840 ft.

RUSK COUNTY—J. W. Shipman et al's Citizens State Bank-L. T. Burton 1 (125-ac), J. J. Y'Barbo sur, 4 mi ne Henderson, elev 432 ft, dr 1010 ft.

WOOD COUNTY — Hollandsworth Drlg. Co.'s Little Sandy Club 1-A, Jas. Hamblin sur, 12 mi se Mineola, elev 308 ft, Pecan chalk 3200-3355 ft, top Austin chalk 4514 ft, dr 5010 ft. Roger Wolfe et al's C. M. Dickey 1 (100-ac), E. Allen sur, 5 mi e by s of Winnsboro, elev 549 ft, top Pecan chalk 2903 ft, top Austin chalk 4391-4490 ft, dry and abd in Eagleford shale 4615 ft.

CASS COUNTY—American Liberty Oil Co.'s J. B. Hodges 1, C. M. Robinson sur, lcn.

HARRISON COUNTY—Adams & Bird's Washburn Lbr. Co. 1, F. Jordan sur, dk. Itex Oil Co.'s T. J. Taylor 1, W. H. Payne sur, dr 5520 ft. Roy C. Swails, et al's Bonnie Pitts 1, sec G. W. Martin sur sd 2000 ft. Waiting on csg.

PANOLA COUNTY — J. L. Cadrin's Robt. Johnson 1, J. Johnson sur, dk. Flinchbaugh & McAneny's H. G. McCormick 1, Jas. P. McAdams sur, sd 2400 ft. G. F. Hudson's J. F. Nail 1, C. McCrary sur, sd 2387 ft. Geo. LeGrand's P. J. Laidleigh 1, A. Thompson sur, sd 885 ft. S. B. Wallace 1, A. M. McLaughlin sur, rog.

SHELBY COUNTY—I. M. Bradley, et al's J. J. Ashberry 2, J. M. Mitchell sur, sd 3590 ft. J. W. Reynolds, et al's Polley Est. 1, E. F. Christenberry sur, rur. Tarbud Oil Co.'s Pickering Lbr. Co. 2, Jas. Forsyth sur, dr 2910 ft.

SOUTH TEXAS

ATASCOSA COUNTY—R. McIntyre's Billinck 1, J. B. Woodleff sur No. 246, 7½ mi e Coughran, mim.

BANDERA COUNTY—Plateau Oil Co.'s R. G. Garrison 1, sec 506 GC&SF sur, 8 mi sw Medina City, prep to set 7⅝ in csg at 3409 ft.

BASTROP COUNTY—Batts & Jarman's A. Paris 1, J. Maximillian sur, N. Dale area, sd 2115 ft. Marts & Beavens' Leatherwood 1, W. McLanglin sur, abd 3277 ft. F. Wilson's M. C. Callaham 1, May sur rig.

BEE COUNTY — G. M. Church's J. C. Woods 1, J. Ryan sur, 3½ mi s Beeville, dr 5056 ft. Henderson Coquat et al's J. E. Maley 1, H. Coley sur, w of Mineral, dr 2931 ft. Fox & Heflin's A. M. Holzmark 1, Richard Jones sur, Foley area, abd 4142 ft. V. I. Grishman et al's A. Augspurger 1, nw sec 1, Ragley sub, J. M. Uranga gr, ½ mi ne Tuleta field, dr 1450 ft. Francis P. Hynes et al Theo. M. Plummer 1-A, Theo. M. Plummer sub, sec 33, Chessman sur, 4 mi sw Caeser field, dr 2710 ft. Littlejohn et al's Borroum 1, Wm. Gill sur, ½ mi nw Rutledge pool, prep to re-dr 125 ft. D. V. Smith's B. B. Atkins 1, M. Woods sur, ru. Sun's Rutledge 1, B. Q. Hadley sur, Rutledge area, set 200 ft csg, woc. Worth Oil Co.'s Rutledge 3 (1-B), A. Hadley sur, Patent 34, sp and sd. R. J. Worthington et al's S. B. Oliver 5, M. F. Rodriquez sur, Gas Ridge, sd 2902 ft. James B. Cunningham et al's D. F. Ridder 1, Baerrera sur, abs. 50, 2 mi e McDonna, to dd fr 519 ft. Fay T. Chew et al's Jones 5, sec 9, Jacinto Pena sur, 1½ mi e Adkins, td 660 ft, sand 652-60 ft, setting 6⅝ csg 642 ft. C. J. LeCompte's A. Herbst 1, M. Leal sur, 4 mi s San Antonio, sd 377 ft, sw sand to set csg. Mayfield Park 1, sd 362 ft. McPhee & Briggs' Florence Lamb 1, M. de Luna sur No. 4, 22 mi s San Antonio, td 2336 ft, chalk, prep to set 6⅝ in csg. Mid-Tex Prod. Co.'s Walker 1, S. W. Dobie sur No. 79, 10 mi n San Antonio, td 1387 ft, ur to 1340 ft. J. H. Parker's M. McCloskey 1, F. A. Desague sur, 5 mi nw Somerset, sd 525 ft. Carrol C. Raborn's Claud McCauley 1, Wm. Harris sur No. 52, 4 mi s San Antonio, sd 965 ft. Richards Oil Co.'s W. M. & R. H. Russell 1, F. Rodriguez sur, dr 1200 ft.

BROOKS COUNTY—United Prod. Co.'s K. J. Hocker 1, Palo Blanco de Maguelles gr, Palo Blanco area, dr 3175 ft.

CALDWELL COUNTY—Adams & Lyle's Moore 1-B, J. Gilbert sur, sd 2290 ft. Ballard & Whitting's A. G. Bridges 1, S. Seal sur, fsh 2150 ft. R. S. Bolling et al's C. F. Robertson 1, John A. Neill sur, sd 2100 ft. Cunningham et al's J. M. Pierce 1, S. Seal sur, Dunlap area, completing, approx td 2400 ft. Detroit Texas Dev. Co.'s N. Dunlap Est. 3, S. Seal sur, Dunlap area, dr 2100 ft. R. Y. Walker's Walker Bros. 2, S. Seal sur, dr 450 ft.

CALHOUN COUNTY—Continental's Am. National Realty 2, sec 6, blk C, P. Garcia sur, 9 mi se Seadrift, 6 in ds stuck, 7332 ft, changing mud. Crown Central's Wilson 1, Esparza sur, Port Lavaca, lcn. Halliburton Oil Co.'s D. Burton 3, M. Sanchez sur, Port Lavaca, comp. 6226-48 ft, initial prod 30 BPH, 3/16 ch, TP 1000 lbs, CP 1500 lbs; D. Burton 4, M. Sanchez sur, Port Lavaca, ru. Mart Oil Co.'s Brundett, sec 8, Wm. Little sur, Matagorda Island, sd 192 ft. Steinberger Pet. Corp.'s W. A. Shofner 3, Port Lavaca, M. Sanchez sur, mim. Texas Co.'s Hollman 1, Powell & Shupe sur, Port Lavaca, lcn; W. Shofner 1, M. Sanchez, Port Lavaca, td 6262 ft, at sdtr td 6248 ft, spraying 18 BPD oil, still trying to wo.

CAMERON COUNTY — J. F. Anderson's Browne Properties 1, blk 397, 3 mi ne Rio Hondo, wor.

DIMMIT COUNTY — Diamond-Half Oil Co.'s A. Eardley Est. 1, R. G. Morgandale sur No. 6, ab 1322, 5½ mi nw Carrizo Springs, dr water well, bldg power line. Joe Lundin et al's Nueces Lands Irrigation Co. 1, lot 16, blk 7, Bermuda Land sub, 12 mi ne Carrizo Springs, lcn.

DUVAL COUNTY—Benedum & Tree's G. B. Parr 1, San Andres gr, 4 mi se Sweden, dst 5900-30 ft, show 23 fourbles sw in 20 min,

DESIGNERS—

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Trained Engineering Staff and Modern Plant Facilities for the Design, Development and/or Manufacture of Special Equipment and Machinery for Oil Field and Industrial use.

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THE SHAFFER SPECIALTY CO.

BOX 136 WHITTIER STATION TULSA, OKLAHOMA 2440 EAST KING STREET

abd 6169 ft. Bridwell Oil Co.'s Bishop Cattle 1, ne sw se sec 76, sw Loma Novio, td 2684 ft, sand 2667-84 ft, 7 in csg 2667 ft, completing. Continental's Sevier 1-B, sec 54, Santa Rosalia gr, 3½ mi nw Driscoll field, dr 3507 ft. J. H. Chandler's Rita de Pena 1, sh 4, Mesquite gr, dr 1550 ft. Harvey D. Ruiz 1, sur 125, 2 mi e Sarnosa field, sand 2641-62 ft, fsh for bailer, completing. Intrepid Oil Co.'s Parr Ranch 2, sec 115, abd 5305 ft. Magnolia's Duval County Ranch 1, sec 100, nw Gov't Wells field, 7 in csg set 1962 ft, sand 1965-68 ft, made small well, dd. Marzo Oil Co.'s Hagist 1, blk 8, Eagle Hill, dr 1000 ft. Mid-Continental Pet. Corp.'s R. Serna Jr. 1, s½ n½ sec 384, Seven Sisters district, lcn. Rogers O&G Co.'s Sophie Hoffman 1, 330 ft sel, 2970 ft swl, sec 118, Hoffman area, sp. Santa Clara Oil Co.'s Sevier 1, sec 7, ab 605, La Gloria Ranch, 12 mi nw San Diego, dr 700 ft. Stanolind's I. G. Yates 1, sec 416, Labbe district, cavity 2315 ft, move in more mud. T. M. G. Drlg. Co.'s Davidson 1, sec 90, 4 mi e and n Loma Novio, D&A 3020 ft.

FRIO COUNTY—Amerada's W. H. Smith 1, J. B. Mason, No. 322, 4½ mi sw Pearsall field, td 6200 ft, top Edwards lime 6180 ft. swabbed dry, pull tubing and dd; Kothman 1, D. L. Crouch sur No. 90/9, ½ mi s Pearsall field, abd 4370 ft. W. D. Bacon et al's J. E. Burns 1, T. H. Clifton sur, sw Bigfoot, lcn. Midland Oil Co.'s Land Bank, BS&F sur No. 2, 1 mi s Pearsall town, abd 4069 ft.

GOLIAD COUNTY — Brown & Wheeler's Kaufman 1, P. Trevino sur, Hords Creek, sand 4433-38 ft, comp 225 bbls 47.6 gravity oil, ¼ choke on tubing, TP 1325 lbs, CP 1475 lbs, cut to 1/64-inch choke pending outlet. Keystone Royalties Co.'s C. B. Wood 1, John Shearn, 3 mi e Berclair, td 5961 ft, gassing, spray some 47.9 gr oil, pulled part of pipe, sd.

GONZALES COUNTY—Amerada's Union Central 1, S. Hendricks League, 13 mi sw Gonzales, dr 2260 ft. Resource Oil Co.'s Otto Lanbeck 1, J. M. Salinas sur, 3 mi w Gonzales, sp and sd.

GUADALUPE COUNTY—J. E. Clark's W. B. Lay 1, J. K. Davis sur, 9 mi se Seguin, td 2446 ft, broken chalk 2372-2446 ft, ran tubing and rods, heading abt 75 bbls. Gode et al's Hicks 1, Santos Coy, dr 925 ft. A. D. Locke's N. S. Lowman, C. Campbell League, 1½ mi nw Stephen, sd 1810 ft. Minerals Corp. of Texas' Allen Phillips 1, Cortines sur, 10 mi sw Seguin, sd 868 ft. W. A. Scrutchins A. H. Smith 1, J. B. Cowan sur, W. Staples, sd 765 ft.

HIDALGO COUNTY — Bluff Pet. Co.'s Knowles 1, sh 14, por 49, 3 mi sw Mission, co to dd from 5539 ft. Cortez Oil Co.'s C. E. Smith 1-C, tr 3-B, por 41, se side Samfordyce, td 2944 ft, pb and perf csg 2753-55 ft, show oil, low pressure, perf 2750-52 ft, comp 2 bbls hr ⅛ ch. D. M. C. Oil Co.'s Daskem 1, blk 34, por 45, 4½ mi ne Samfordyce field, sand 4090-4110 ft, 5 in csg set 4074 ft. Ed East's L. R. Scarborough 1, blk 14, E. Retama sub, San Salvador del Tule gr, dr 1950 ft. Gulf States Oil Co.'s (Deering & Kayser) John C. Engleman 1, lot 3, blk 70, Mastena gr, 8 mi ne Edinburg, td 7508 ft, pb 6770 ft, set 500 ft 7 in csg on bottom, perf 6658-6748 ft, 4 inch ds set 6629 ft on packer, flowing 30 bbls light oil, 12M gas, ⅛ ch. Maddox,Turnbull & Irwin's John H. Shary 1, lot 21, Shary sub, por 58-59-60, 4 mi se Mission, dr 5736 ft. Stevens & Mundy's (was Mundy & Sons) Guerra 1, tr 12, por 41, 4000 ft n Samfordyce field, sp. Union Sulphur Co.'s ARGL&I Co. 1, tr 2297, lot 59, N. Capisallo district, Llano Grande gr, 1¼ mi ne Mercedes field, td 6965 ft, set 7 in csg 6962 ft, dr plugs; ARGL&I Co. 4, lot 1, blk 99, N. Capisallo district, Llano Grande gr, 1½ mi sw discovery, dr 6912 ft; ARGL&I Co. 5, lot 2082, N. Capisallo district, Llano Grande gr, set 1224 ft 12½ in csg.

JACKSON COUNTY — Phillips Pet. Co.'s Nina H. Toney 2, Ramon Musquiz sur, Vanderbilt, dr 3315 ft. Shell's C. F. Combs, sec 33, Morris & Cummings sur, 4650 ft.

JIM HOGG COUNTY—Miller et al's Yeager 1, blk 6, sec 20, fsh 3530 ft. Phillips et al's Allen 1, blk 293, Pippin sub, Randado gr, sd 42 ft.

JIM WELLS COUNTY—A. M. Hagen et al's Adams 1, State sur No. 10, td 5011 ft, 2 mi sw Alford, dr, ran electric formation test, sd. Magnolia's A. A. Seeligson 6, V. Canale sur No. 218, Premont, abd 7135 ft.

KARNES COUNTY—Marzo Oil Co.'s Thane 1, Francisco Ruiz sur, 6 mi se Falls City, dr 1000 ft. Mart Pet. Corp.'s Cochran 1, McConnell League, sp and sd. R. L. Wheelock et al's Mrs. Ida Herder 1, James Johnson sur, 1 mi ne Burnell, abd 3385 ft. W. Lon Woalett's R. W. Holmes 1, Carlos Martinez sur, 3 mi s Green.

KENDALL COUNTY — J. E. Freeman's Gerfer's 1, Mark Hodgson sur No. 796, sd 102 ft. Southwestern Dev. Synd.'s Werner 1, Torrey sur No. 781, Sisterdale area, td 710 ft, pb and re-dr hole.

KERR COUNTY—Jeff Love & Eastland Oil Co.'s Jeff Love 5-E, Martinez sur, sec 1594, ½ mi se original Love Ranch test, sd 5625 ft.

KLEBERG COUNTY—Harry Clark's W. S. Rogers 1, lot 1, blk 36, Kleberg sub, sd 750 ft. Fidelity Explor. Synd.'s O'Henry 1, lot 2, sec 49, KT&I sur, dr 3010 ft, ran electric formation tester, showed sand 2505-40 ft, set 7 in csg abt 2650 ft, woc, will perf.; R. G. Flato, Trustee 1, 150 ft sl and el, blk 14, sec 40, KT&I sur, Kingsville area, lcn. Parr & Ponder's Sam Michalk et al 1, lot 5, blk 37, KT&I sur, sd 1885 ft.

LEE COUNTY—McNeill Pet. Co.'s G. B. Batey 1, Wm. Nichols sur, 14 mi nw Lexington, top Edwards lime 3315 ft, td 3367 ft, abd; G. B. Batey 2, Wm. Nichols sur, sp.

LIVE OAK COUNTY—Benco Oil Co.'s Eliz. Mahoney 1, Mark Killely sur, 3 mi w Three Rivers, sd 78 ft. Mills Bennett's Walton & Shipp 1, P. Salinas sur No. 11, 3½ mi ne McNeill field, sand 4699-4711 ft, dst, 480 ft oil, 60 ft sw, 190 lbs, ¼ and ⅜ ch, coring 5008 ft. Earl Callaway et al's W. R. Lyne 1, sec 74, M. M. Lyne sur, ab 763 ft, lcn; Moozgemba 1, lot 122, Geo. West sub, blk A, ab 113, S. L. Williams sur, lcn; Geo. West Heirs 1, sec 255, BS&F sur, ab 113, dr 2350 ft. Henderson Coquat's L. A. Reagan 1, McGloin sur, sd 1925 ft. George R. Pinckley et al's L. Jacob Corp. 1, ne se sec 3, GH&H sur, 2 mi e Jacob field, ru. Smith & Story's Sparks 1, 1100 ft sw discovery well Lucas field, Jane Curry sur, working in 5203 ft. E. W. Turner's J. W. Walker 1-A, blk 9, C. Simmons sub, dr 950 ft. J. C. Whittington et al's Little 2, M. M. Shipp sur, 1 mi n McNeill field, dr 4850 ft.

MAVERICK COUNTY—Simpson & Streeter's Joseph Wipff 1, sec 18, 7 mi w Chittim field, 10 mi n Eagle Pass, re-dr 220 ft.

McMULLEN COUNTY—Aransas Oil Co.'s M. H. Reed 1, J. A. Spicer sur No. 70, 12 mi sw Tilden, dr 925 ft. Bussa Oil Co.'s F. B. Horton 1, James A. Jean sur No. 20, 3 mi sw Tilden, dr 650 ft. J. G. Gibson's Masur & McDowell 1, sec 19, HT&B Ry. sur, 4 mi sw Tilden, dr 1900 ft; G. C. West 1, lot 1, blk 4, sec 14, HT&B sur No. 1092, 5 mi sw Tilden, sd 455 ft. Howard & Carpenter's Jungman 1, M. Hely sur, sd 1210 ft. Loma Oil Co.'s L. Jacob 39A, W. H. Jacobs sur No. 8, Jacob field, dr 300 ft. Lucky Strike Oil Co.'s H. L. Lark, blk 114, Lark sub, E. W. B. Scrugham sur, dr below sur csg. L. D. Ormsby's Griffith 4, Osborne sur No. 50, sd 112 ft; Griffith 5, 1030 ft el, 330 ft nl, Osborne sur No. 50, prep to move on. C. W. Points et al's Fahler 1, Geo. Pittuck sur, 5 mi w Calliham, sd 1004 ft. Texio Oil Co. et al's J. W. Atkinson 1-B, 660 ft nl and wl, ne¼ sec 96, R. C. Loma sur, 3 mi ne Loma Alto, dr.

MEDINA COUNTY—Callahan & Roberts H. Taylor 1, A. Brushet sur No. 135, 5 mi sw Hondo, sp and sd. Joe Dupree's Hugo Batot's John Ball sur No. 1478, 7 mi sw Hondo, td 550 ft, run csg. Letro Oil Corp.'s F. B. Forest 1, sec 69, 1½ mi ne Ina field, 1½ mi Adams field, sd 20 ft. La Jita Corp.'s Richard King Est. 1, c se¼ sw¼ sec 22, Richard Ranch sub, ne discovery well, King field, dk.

NUECES COUNTY—W. F. Lacy et al's W. L. Lewis 1, Stone, Kyle & Kyle tr, No. 147, 2 mi sw Baldwin discovery, dr 4791 ft. Magnolia's Sanders 1, BS&F sur No. 165, 1980 ft nw Baldwin discovery, sand 4060-66 ft, 7 in csg set 4059 ft, dr plugs, 1100 ft oil, ¼ and⅜ ch, 5 min., 24.6 gr. Texon Royalty Co. et al's L. M. Vance 1, Thos. Gallagher sur, ab 988, ¾ mi s Saxet field, dr 3525 ft. N. M. Wilson's Bluntzer 1, sh 6, Bluntz lands, Casa Blanca gr, 10 mi n Banquete, sp. Richardson & Thomas' Page Bros. 1, 330 ft nl and el, 550 ac, Geo. Franks sub, w Saxet field, building dk.

REAL COUNTY—H. J. Hartwell et al's L. J. Haby 2, AB&M sur No. 175, td 3210 ft, dr 3130 ft in sdtr hole.

REFUGIO COUNTY—J. & C. Co.'s J. F. Welder 1, J. Farley sur, ab 150 nw Greta field, sd 6022 ft. Hewitt & Daugherty's M. F. Lambert 19, blk 21, Hardwick sur, se Greta field, td 6263 ft, sand 6254-62 ft, comp 40 BPH 3/16 ch. United Prod. Co.'s M. F. Lambert 2-A, Harper sur, Greta, coring 6450 ft.

SAN PATRICIO COUNTY—Argo Roy. Co. & Storm's Hobbs 1, Delgado gr, 1 mi s Mathis, set sur csg, sd for water. Benson & Jones' E. H. Welder 1, sec 38, Welder sur, s of Plymouth, dr 5800 ft, sw sand 5761 ft. Heep Oil Co.'s E. H. Welder 3-E, sec 46, Welder sub, Plymouth area, comp 5646 ft, 12 BPH thru 5/32 ch; E. H. Welder 5-E, sec 46, Welder sub, Plymouth area, lcn; E. H. Welder 7-E, sec 46, Welder sub, Plymouth area, dr 500 ft; E. H. Welder 1-F, sec 46, Welder sub, Plymouth area, dr 1000 ft. Magnolia's Corpus Christi B&T Co. 2, 330 ft el, 390 ft nl, H. H. Hunter sur, Plymouth area, mim. Plymouth Oil Co.'s E. H. Welder 9-C, sec 49, Welder sub, Plymouth pool, coring 5650 ft; E. H. Welder 10-C, sec 48, Welder sub, Plymouth district, dr 4500 ft; E. H. Welder 1-D, Portillo sur, se Sinton field, td 6680 ft, perf 5427-31 ft, comp gasser, pb 5810 ft.

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STARR COUNTY—G. R. Borah et al's A. Guerra 1, sh 6, San Jose gr, 2 mi n La Reforma, fsh 3517 ft, H. C. Harter's Sanchez 2, lot 3, sh 72, por 72, 9 mi n Roma, sd 503 ft. Henshaw & Rothert's Seabury et al 1, 248 ft el, 219 ft nl, nw 15 ac south 263.7 ac tr 256, por 38, 1250 ft sw Samfordyce, mim. Terry Hornaday's Doyno & Chatfield 1, blk 4, tr 21, por 80, w Rio Grande City field, coring 1450 ft. Hugston Oil Co.'s Wood-Gregg 1-A, por 84, w Rio Grande City, sd. A. Nix et al's Starr County Cattle Co. 1, blk 58, JL sub, por 89, sw Barbacosa field, coring 2475 ft. Pedernal Oil Co.'s Hicks & Phelps 1, El Pedernal Grant, dr 2280 ft.

TRAVIS COUNTY—G. A. Art's Rolff 1, Thos. Hancock sur No. 20, ½ mi n Sweden, dr 665 ft. W. F. Billingsley's Lungrin, Kimbro sur, blk 17, dr 448 ft. R. C. Hill's S. A. Johnson 1, John Hahn sur, sd 840 ft.

VICTORIA COUNTY—Barnsdall's Gray 1, SA&MG Ry. sur, ab 382, Placedo area, comp gasser 4760 ft, show little oil. Eastern Texas Oil Co.'s Henderson & Pickering 1, blk 19, Benevidas sur, Placedo, td 6029 ft, pb and set csg 4806 ft, perf 4750-55 ft, sd; E. Williams 1, E. Benevidas, ½ mi ne Placedo field, bailing, sand 4740-48 ft. Gillespie & Superior's Brandt 2, lot 11, Rupley sur, Placedo field, dr 1500 ft. Gulf's Keeran 7, M. de Leon sur, Keeran, complete 5855 ft. Magnolia's Henderson & Pickering 1, lot 18, E. Benevidas sur, Placedo field, td 6394 ft, pb 4794 ft, comp as gasser. Martex Oil Co.'s Mitchell 1, E. Benevidas sur, ¾ mi se Placedo discovery, dd from 5337 ft. E. L. Smith Oil Co.'s et al's M. Lala, lot 13, Rupley sur, Placedo area, working 4780 ft.

WEBB COUNTY—Rose B. Barnhardts' de la Garza 1A, sec 262, 2 mi n Carolina-Texas field, ru. Mills Bennett's J. Lopez 3, tr 10-B, (100-ac), sec 73, abd 3224 ft; F. Lopez 1, 330 ft nl and wl, ne sw sec 724, mim. Carolina-Texas O&G Trust's Benevidas 11, sec 683, Carolina-Texas area, fsh 4996 ft. D. E. C. Oil Co.'s Slator Ranch 1, blk 29, Mission Oil Company sub, Slator Ranch, J. S. Borrego gr, lcn. O. W. Killam's A. M. Bruni 39, blk 50, sec 15, Foltz sub., Mariano Arispe gr, 1 mi sw Cole 2700 foot prod. sp. James Neal et al's Laurel 1, sec 1119, CCSD&RGNG sur, 3 mi e Mirando City field, lcn. Ross Amigos Oil Co.'s Garcia 1, sec 2168, sd 2180 ft. South Texas Oil Co.'s Laurel 1-A, blk 2, sur No. 269, Laurel area, dr 1275 ft. W. H. Vernors Tr.'s Jeffries Ranch, blk 13, sec 1453, 30 mi nw Laredo, set 40 ft 10 in csg and sd. A. H. Wray's Geo. Steumpke 1, sh 1, Brewester Pasture, Joaquin Galen grant, sd 1060 ft, making contract to dd.

WILLACY COUNTY—Kingwood Oil Co.'s Stillman Ranch 1, lot 16, blk 30, sh 44, Stillman Ranch sur, San Juan Carricitos gr, dr 5627 ft. South Texas Dev. Co.'s F. Armendiez 1-A, sh 4, sd 3660 ft.

WILLIAMSON COUNTY—Fuch & Walters' F. Ollman, Bevil sur, No. 56, sd 875 ft. J. W. Gabehardt et al's Lawrence 1, S. Miller sur, abd 2080 ft. Glass Bros.' A. Albertson 1, P. Coursey sur, sd 42 ft. H. F. Goff et al's A. Klotz 1, W. Cartwright sur, sd 1210 ft. Rule et al's Bochmeyer (Rummell) P. Cartwright's sur, fsh 800 ft.

ZAPATA COUNTY—Humble's E. Dominguez 1, por 31, dr 3033 ft. Kenrow & Co.'s Pedro de los Santos 1, sh 26, Fansler Part, Comitas gr, sp. Joe Palmer's Emma Markrud 1, blk 22, sec 616, dr 750 ft. Duke Phillips' L. Guitterez 1, blk 21, La Huerta gr, 6 mi sw Escoba field, dr 1150 ft. E. L. Smith Oil Co.'s F. G. Martinez 1, blk 125, sh 1, El Grullo gr, sd 2013 ft.

TEXAS GULF COAST

JEFFERSON COUNTY—Humble's Kyle E. White 1, C. T. Cade A-450 sur, dr shale 2581 ft. Sun's Hebert & Broussard 1, s of Lovall Lake, B. Blackmon sur, reaming 6847 ft.

LIBERTY COUNTY—A. L. Maxwell's M. P. Hinchliff 1, ne of Cleveland, H&TC sur No. 105, fsh 5494 ft. Pevoto & Mayo's C. T. Palmer 1, sw of Cleveland, Jas. Fenner sur, sd 4931 ft.

MADISON COUNTY—Poteete et al's Poteet 1, ne of Madisonville, L. Helsey sur, no report.

MONTGOMERY COUNTY—Mid Tex Oil Co.'s Delta Land & Timber Co. 1, w of Willis, R. T. Oliver sur, ru.

SAN JACINTO COUNTY—Darby, Jones, McBee Drlg. Co.'s R. Bennett 1-A, D. Beer sur, reaming to bottom 3947 ft.

TRINITY COUNTY—Gulf Prod. Co.'s Trinity County Lbr. Co. 4, J. Hanley sur, abd 3006 ft.

WHARTON COUNTY—Sterling O&R Co.'s F. Janek 1, J. Scott sur, dr shale 4350 ft. Shell's Steves 1, n of Louise, dr shale 5608 ft.

ANGELINA COUNTY—Kock & Duffey's L. W. Alberry 1, near Diboll, A. Prado sur, dr shale 2250 ft. Bryan & Lyon's F. Allen 1, nw of Lufkin, A. S. Burnes sur, ru.

AUSTIN COUNTY—Deering & Kayser's T. A. McClenton 1, se of Bellville, Thos. Bell sur, sd 2581 ft. R. L. Wheelock et al's N. Harrigal 1, w of Bellville, B. Babbitt sur, abd 2700 ft. T. F. Wood et al's Otto Trenchman 1, se of Millhiem, Jas. Cummings sur, sd 750 ft.

BRAZORIA COUNTY—Harrison & Abercrombie's Bernard River Land Co. 2, Old Ocean, C. Breen sur, dr in sdtr hole 5559 ft.

CHAMBERS COUNTY—Texas Gulf Prod. Co.'s Simon 1, 4½ mi ne of R. A. Mason's White 1, Anahuac area, T&NO sur, sec 33, building roadway. Woodley Pet. Co.'s A. C. Blanke 1, 1¾ mi ne of R. A. Mason's White 1, Anahuac area, H&TC sur, sec 41, lcn.

COLORADO COUNTY—Mid Continent Oil Co.'s Scherz 1, J. Cummings sur, dr shale 3354 ft.

HARRIS COUNTY—Cockburn Oil Corp.'s Brooks Estate 1, n of Houston Ship Channel, R. R. Vince sur, dr shale 873 ft.

JASPER COUNTY — Marathon Oil Co.'s Jasper County Lbr. Co. 1, se of Jasper, T. C. Holmes sur, dr shale 4351 ft.

WYOMING

ALBANY COUNTY—Ohio's Two Rivers, sw ne 8-17n-74w, dr 2468 ft in Sundance where it had water and may abd.

BIG HORN COUNTY—J. H. Shafer's No. 1, sw sw sw 8-49n-91w, dr 1170 ft.

CARBON COUNTY—General Pet. Corp.'s Whitford 1, sw se ne 24-20n-84w, coring 4700 ft in Wall Creek.

CONVERSE COUNTY—Chadron-Osage Oil Co.'s State 1, cse 16-32n-69w, dr 755 ft in Pierre shale topped at 580 ft.

FREMONT COUNTY — Monongehala Oil Co. & Sidney H. Keoughan's Wisda 1, ne se 13-26n-103w, sd 4200 ft. Cores revealed test was drained on steep side of structure and well may be abd for new lcn.

PARK COUNTY—George Beck's Test 1, nw se nw 27-53n-101w, dr at 1300 ft with the 6⅝ in csg cemented 990 ft.

SWEETWATER COUNTY—Vermillion Oil Co.'s Government 1, sw sw sw 7-12n-99w, Vermillion Creek structure, lcn; State 1, sw sw sw 16-12n-99w, abd 4745 ft.

WESTON COUNTY — Conway Oil Co.'s Government 1, se se se 7-48n-91w, sd csg 2200 ft.

CROOK COUNTY—M. D. Miller's Kinter 1, n½ ne se 13-52n-62w, dr 1320 ft with 5 3/16 in csg cemented at 1305 ft.

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This Week with the Industry's EQUIPMENT SUPPLIERS

Continental Appointed Exclusive Climax Mid-Continent Distributor

The Continental Supply Company has been appointed exclusive distributor in the Mid-Continent field for Climax Engineering Company of Clinton, Iowa, manufacturers of Climax Blue Streak engines and power units and Chrysler industrial power units, Climax equipped.

L. L. Machia is factory representative for the Climax Company, with headquarters in Fort Worth.

The Continental Supply Company is stocking a number of sizes of these power units in several centralized locations in Texas, Oklahoma and Kansas, and will provide parts service from well-located stocks throughout the Mid-Continent area.

Red-Rex Corporation Is Issued Patent

Red-Rex Corporation, Houston, was issued a patent on July 29, covering its Red-Rex pipe union, according to Charles Girten, vice president and general manager. This pipe union has but five parts: the two hubs; the nut or clamp; the seal ring and one bolt. There are no parts to adjust or fall apart. The union is easily removed and installed. The highest pressure union is made to withstand 8000 pounds pressure.

Texas Electric Steel Company Gives Fishing Party

Business around several machine shops was quiet Friday, July 19, but the results permitted the snapping of the accompanying photograph. The fishing trip was out of Galveston 53 miles. The catch included 32 kings, 167 red snapper, 10 mackeral, a total of 732 pounds in all.

According to C. W. Shartle, Texas Electric Steel Casting Company, Houston, the sick included Messrs. Grove, Davis, Hewitt and Jack Myracle, but the sickest were those who thought the shop would go to hell if they got off for a day. According to Shartle, the most disappointed was Scotty Henderson—because he did not get sick.

The party was given by Texas Electric Steel Casting Company in hopes that the guests would not kick so much about "little things like holes in pressure castings."

New Supply Branches Opened at Corpus Christi

R. H. Christy, Laredo manager for Oil Well Supply Company, has signed a lease with the Kokernot-Nixon properties for a site on Port Avenue, Corpus Christi, near the ship channel for a branch for that concern. Construction on the building will commence immediately.

R. L. Collier is in charge of Continental Supply Company's Corpus Christi store, which is building a warehouse near the ship channel in that city.

E. Horner, Okmulgee, Oklahoma, secretary and treasurer of Oil Field Equipment Corporation, has announced plans for the establishment of a branch in Corpus Christi. Considerable pipe has been shipped into Corpus Christi via deep water for that concern.

H. O. Powell, Fort Worth, in charge of pipe sales for the National Supply Company, M. R. Krinkergoff, Longview, assistant division credit manager, and R. E. Brock, in charge of the concern's branch in Hebbronville, have been in Corpus Christi inspecting the area with the intention of opening a branch there. Mr. Krinkergoff has made his temporary residence in Corpus Christi.

FWD Names New Administrative and Sales Assistants

Appointment is announced by Four Wheel Drive Auto Company, Clintonville, Wisconsin, of Chester J. Roberts as assistant general manager, and Robert C. Geffs as assistant sales manager. Mr. Roberts brings to his new post a wide experience in industrial engineering as applied to the automobile and paper industries. Among his projects have been machine shop layouts for Nash Motor Company, A. O. Smith Corporation and Gisholt Machine Company. For six years he was manager of the industries and trade promotion divisions of Milwaukee Association of Commerce.

CHESTER J. ROBERTS

ROBERT C. GEFFS

Mr. Geffs has had 15 years experience in the successful selling of motor trucks and equipment to the commercial field. For over 12 years he was associated with White, Diamond T Motor and Highway Trailer Companies.

Standing, left to right: Terry Dalehite, captain of boat; Charlie Reynolds, Oil Equipment Sales Corporation; Jack Walmsley, chief gaff-hook artist; Frank Brewis, Port Houston Iron Works; P. O. Davis, Pure Oil Company; Otto G. Keil, Gulf Engineers. Seated, left to right: Lee Hewitt, American Iron & Machine Works; F. M. Wittlinger, Texas Electric Steel Casting Company; R. R. Grove, Cameron Iron Works; Perry Hamilton, Oil Equipment Sales Corporation; Jack Myracle, American Iron & Machine Works; A. Henderson, J. H. McEvoy & Company; C. W. Shartle, Texas Electric Steel Casting Company; E. Barker, Atlas Engineering Works.

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Loosen a tight pipe?
Loosen a rusty fitting?

One man can do any of them easily with a RIDGID Super-Six or Super-Four, those compound leverage wrenches that make one man as strong as ten pulling on a wrench with pipe on the handle.

For these wrenches have 10 times the leverage of 48" and 36" wrenches. Chain the trunnion quickly on the pipe, put the wrench on the fitting—and the fitting pumps right off. This Super-RIDGID will pay for itself in salvaged fittings alone on your first tear-down job.

You'll find the Super-Six and Super-Four two of the most valuable tools in a kit. Ask your Supply Store.

THE RIDGE TOOL CO.
Elyria, Ohio, U. S. A.

RIDGID PIPE TOOLS

WHIPPING is a symptom

● The drilling line that whips excessively at high speeds also plays other undesirable pranks. It doesn't return the idle block in fast time. It doesn't spool properly under light load. It piles up on the drum and crushes itself. It twists in the sheaves and wears itself prematurely. It kinks at every opportunity.

All those undesirable qualities are due to *non*-preforming.

That is why you should insist on using only LAY-SET Preformed Rotary Lines. LAY-SET is willing to work at high speeds, regardless of load. Every strand carries its full share of the load with the result that it resists twisting in the sheaves, spools perfectly on the drum, and resists kinking.

LAY-SET Preformed Rotary Lines give you more and faster round trips. LAY-SET Preformed saves the driller's time; saves the equipment. And LAY-SET "Green Strand" (made of Improved Plow Steel) is supreme.

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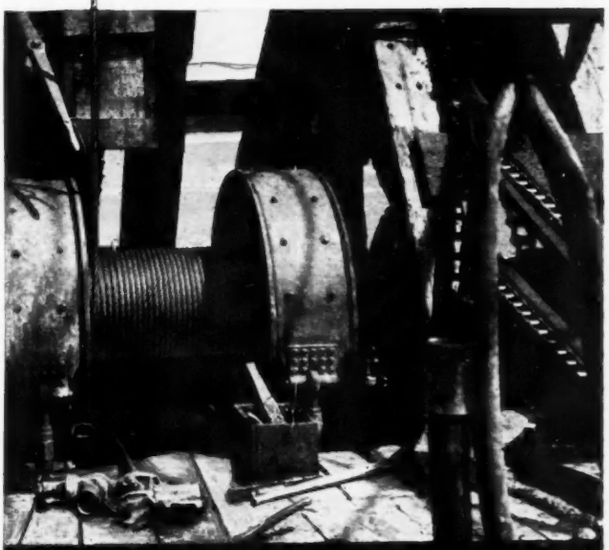

LAY·SET *Preformed* ROTARY LINES

Squeaks from the Bull Wheel

Letter From a Man at Home When Wife is on Vacation

The wife of a good friend of ours is away on vacation and last week our friend, in reply to a series of letters from the wife, who tried to operate the house by remote control during her absence, wrote her a letter. How we received a copy of the letter is another thing. But here it is:

Dear Toots:

Pardon dictation, but I'm in a terrible trivvet, after being away some time. Will try to answer your questions as best I can remember them—categorically.

I found the suspenders.

I won't tell the guests what the Haviland cost.

Not drinking too many mint juleps. Had only two since I returned home. Better than when you're at home, eh?

The rock garden looks very good, thanks to one sprinkling and a number of good rains.

I haven't given anything away yet. Will report after guests depart. Little Frank, Mary, Frank et al's okay.

Little Frank not pounced upon except when he insists on having his own way. And when he doesn't tell—

The boys at Nashville seemed to be very happy.

Also satisfied.

Yes, I was mighty sick. Two raw onions on an empty tummy.

I learned nothing of advantage to Frank.

The plants in the rock garden are alive.

The flowers in the back seem to be okay.

Yes, I found the suspenders.

I not only will have Susie clean up after guests are gone, but have arranged for her to do the blooming cooking, etc.

Aolia will come out and watch the nigger.

I'll watch Aolia.

Grass isn't too high yet; quit growing after last trim.

Lost the boy's name who'll do it for two bits. Save the job for Jim.

Bob's hopes for the job in question are only political hopes. The only thing about a politician that won't lie is his hair.

No, Mrs. ——— isn't to blame. Go to see her whether she comes or not. Being so darn young, we can afford to be generous.

Mac is okay.

Haven't seen Irene.

Mrs. ——— mother was buried in Pittsburgh.

I didn't forget the G-E payment.

Got the dirty sheets, pillow slips, et als to the laundress, as well as my own stuff.

Out of shorts. Bought at same time, all busted same time.

Haven't left any windows up yet—for long—when it was raining.

Always lower 'em before I leave house.

No crumbs on the floor. No ants heard from so far.

K——'s disposition is like my tummy after eating sorghum. Plenty bile.

H—— returns your love. Think she loves W—— the most, however. Spent week-end with him. Guest of his sister, mother, et als, you know. Why didn't visit me that way?

Have advised Bill, re dogs. Has nine now. Soon won't have enough fleas to go around.

And that stuff they feed 'em looks like spoiled potted ham.

Hard on a weak stomach when they place it so near the table, too.

If they mixed beer with it I'd have to leave the house.

Found the suspenders where they should have been—in my clothes cabinet.

I paid the —— & Co. bill.

Also gas bill.

Took vacuum cleaner to Mary.

S—— returned the beaded bottle and whiskey loaned 'em.

Also found the flour over at their house when went to borrow some for cream gravy. They'll have some left when you get back!

Keep the bird bath filled when I'm home. Dirty birds.

Also gave 'em mildewed loaf of bread I'd left over a week's absence.

Very appreciative. Mildew allee same caviar.

"Dad" about as usual. Over Sunday. Gave him a drink. Went to sleep. Woke him up by asking if he'd have another. Pretty weak. Dad is, I mean. Whiskey 100 proof, 11 months old.

The mamma robin has done her stuff, and departed.

Maybe she'll notice papa robin some now.

Keep the garbage can covered when I'm there. Always off when I come back. Neighbors or dogs, don't know which.

Heluva smell. Even empty.

Haven't had a poker party, yet. May if you don't hurry back.

Why keep the G-E running. Half-pound butter and case of beer.

And gingerale. Might need it.

Mint bed going the way of the world. Has a depression.

If you'll hurry back won't go to Niagara till you come.

And you can go with me.

Suspenders were in the top drawer of clothes cabinet—my clothes cabinet.

Also lost belt.

Silver just where you said it was.

Ditto best towels.

Took the bed spread off before going to bed.

Sent dirty bed linen, towels, etc., to nigger. Mary's suggestion. Didn't look dirty to me.

Then hold those keys till somebody wants 'em. Don't know where I found 'em.

Know it wasn't Paducah.

Somebody put that chemise in my things. There's bound to be a hell.

Got the house key back from the S——'s. Have given it to Aolia.

They spent their vacation money for porch furniture.

Broke down first time neighbor sat on it. Very special bargain.

Well, I believe I've got 'em all, plus some that may come up. Gimme credit for 'em. Buhlieve muh, ole keed, it's a heluva way to live.

Come on back or I'll lose the damned suspenders again.

Love and things,

Bill.

• Manufacturers designing or developing bradenheads are cautioned to read carefully Patents No. 1834968 and No. 1869739 in order to avoid possible infringement.

• These Rector Patents, together with others now pending, cover a tapered solid suspension as well as a split ring suspension, either of which form a metal to metal shut-off below replaceable packings.

*

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FT. WORTH, TEXAS

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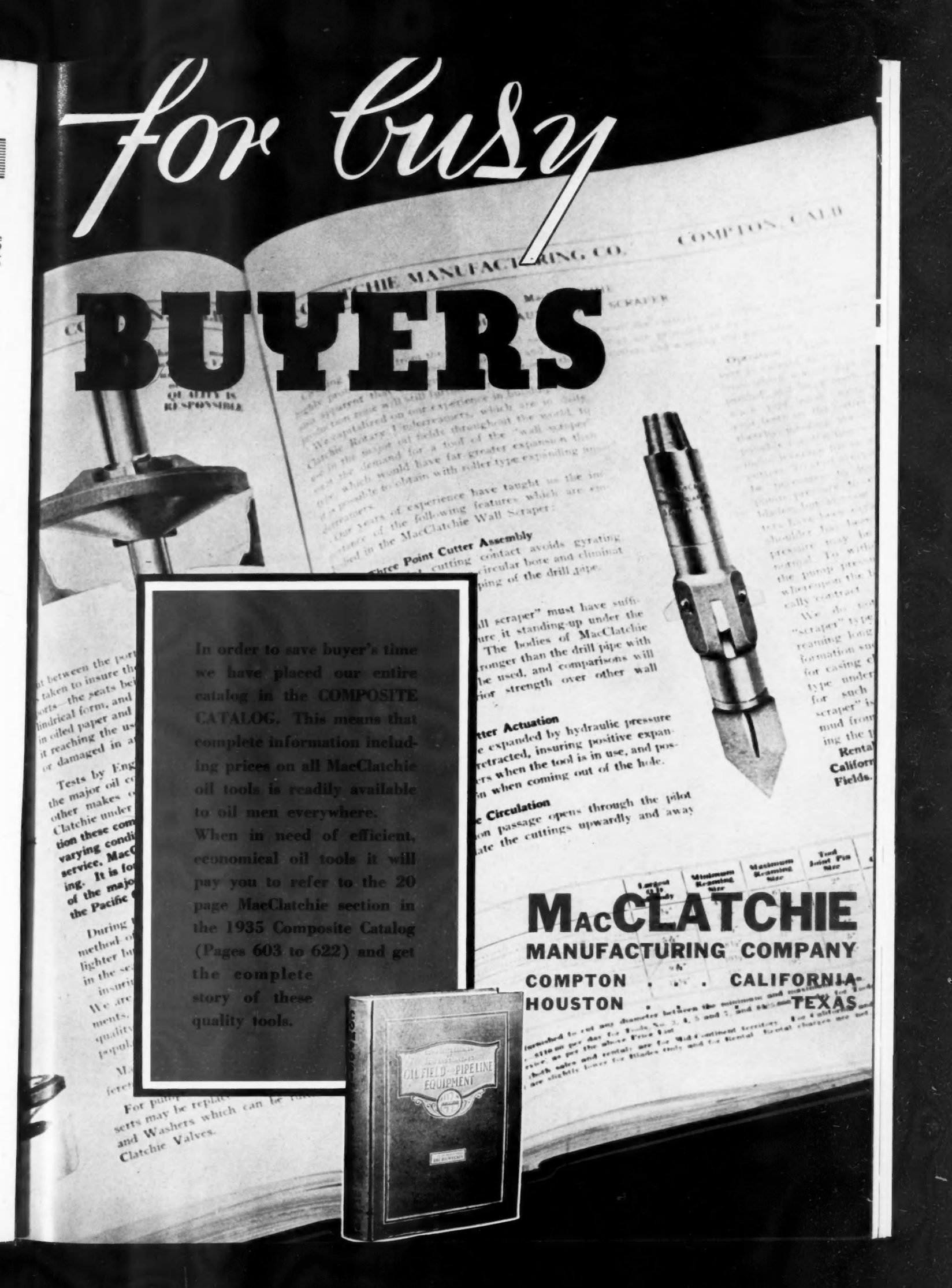

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